Manitoba Water Stewardship

Annual Report 2009-2010

Gestion des resources hydriques Manitoba

Rapport annuel 2009-2010

Manitoba

MINISTER OF WATER STEWARDSHIP

Legislative Building
Winnipeg, Manitoba,
CANADA R3C 0V8

His Honour The Honourable Philip S. Lee, C.M., O.M.
Lieutenant-Governor of Manitoba
Room 235
Legislative Building
Winnipeg MB R3C 0V8

Your Honour:

I am pleased to present the Annual Report of Manitoba Water Stewardship for the year ending March 31, 2010.

Of particular note, the 2009 spring flood crest on the Red River was the second highest recorded since 1852. Manitoba Water Stewardship's flood fighting efforts helped to prevent an estimated $10 billion in flood damages. A number of new flood mitigation initiatives were also undertaken to better protect Manitobans from future flood events.

Manitoba Water Stewardship is committed to protecting the health of Manitoba's aquatic ecosystems, including its fish communities, providing safe water for drinking purposes, managing water-related risks such as floods and droughts for the security of Manitobans, and stewarding the societal and economic values of our streams, rivers, lakes and wetlands. We are privileged to have an abundance of high quality water in Manitoba to support our environment, our economy and our society. The Department continues its goal to provide the best water for all life and lasting prosperity.

I am pleased to report on the Department's many accomplishments over the past fiscal year and our stewardship of this resource for present and future generations.

Respectfully Submitted,

Original "Signed By"

Christine Melnick
Minister of Water Stewardship

Manitoba

Deputy Minister of
Water Stewardship

Legislative Building
Winnipeg, Manitoba
Canada
R3C 0V8

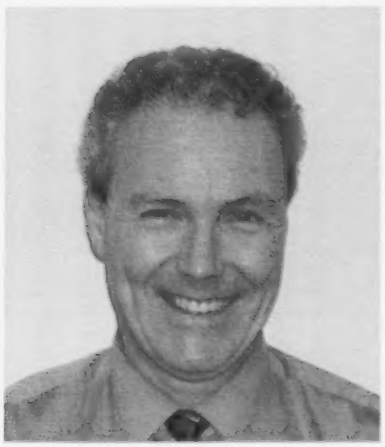
The Honourable Christine Melnick
Minister of Water Stewardship
Room 314, Legislative Building
Winnipeg MB R3C 0V8

Dear Minister:

I am pleased to provide the Annual Report of Manitoba Water Stewardship for the year ending March 31, 2010.

The Report profiles the accomplishments of the Department related to the ecological health of Lake Winnipeg and other watersheds, flood forecasting and flood fighting in this near record-setting year, new flood mitigation initiatives, regulation of water supply and water quality as well as efforts to promote water conservation. Detailed information on all programs, their objectives and key results is reported along with statistical information related to key activities and performance measures.

Respectfully submitted,



Original "Signed By"

Don Norquay
Deputy Minister

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Manitoba Water Stewardship
Organization Chart
As at March 31, 2010

Figure 1

HIGHLIGHTS

Ecological Services Division

- Provided $300,000 in funding for the restoration of two of Manitoba's large lake marshes, Delta Marsh on Lake Manitoba and Netley-Libau Marsh on Lake Winnipeg.

- Provided coordination for the 54 agency planning group involved in the development of the draft Southeast Regional Groundwater Management Plan.

- Continued work with Natural Resources Canada in the production of a geospatial hydrography data model and vector topographic dataset that synthesizes key concepts of hydrography and hydrology and provides a quality geometric description of Manitoba surface water systems.

- Continued the development of the WaterSmart initiative – a conservation and efficiency initiative to reduce consumption of water by Manitobans. This included continued funding for the replacement of 13 L toilets with 6 L low flush toilets under the Low Income Residential Efficiency Program as well as continued education and public outreach.

- As a component of the Natural Resources Canada Prairie Regional Adaptation Collaborative Water Theme, Water Stewardship in collaboration with Friends of the Earth Canada hosted workshops in Manitoba aimed at educating provincial staff of the 'Water Soft Path' techniques of water conservation. This approach encourages water conservation as a means of reducing water demand. Overall, the project will enhance decision-makers' adaptability to climate change.

- Completion of the Conservation District Framework for the Future consensus document articulating a shared vision of strategies and priorities for the Conservation Districts Program.

- Senior and regional watershed planners provided planning and support services for 17 integrated watershed management plan processes as required by *The Water Protection Act*.

- Groundwater mapping was undertaken in several parts of the province to support integrated watershed or aquifer management plans. Updates on aquifer conditions were provided for the Oak Lake and Winkler aquifers as part of continuing input to these plans.

- Detailed field, office, and modeling work continued in south eastern Manitoba to improve our understanding of groundwater conditions in this area. The information will aid in finalizing the digital groundwater model which will be used for sustainability evaluations.

- Staff have started work on a draft conceptual Drought management Plan and Strategy for the province. This work includes the collection of background information and the selection of drought indicators for the plan.

- Work began to compile, analyze, and assess comprehensive water chemistry, biological and physical data for the Lake Winnipeg State of the Lake Report, which will be co-authored by Manitoba Water Stewardship and Environment Canada.

- Staff provided technical secretariat support to both the Lake Winnipeg and Lake Manitoba Stewardship Boards.

- Developed a draft framework for the Lake Manitoba Fisheries management Plan directed at ensuring the long-term sustainability of the fishery for all users. A public engagement process, including a

series of public meetings seeking input from all users around the lake interested in sharing their ideas on future management of the fishery, was also initiated.

- Staff continued discussion with fisher representatives from communities around Lake Winnipeg to establish a new Lake Winnipeg Fishery Resource Management Board. The intent of this lake-wide board is to provide fishers greater participation and input into fisheries management decisions.

- The first year of a long-term monitoring program for Rusty Crayfish populations in Falcon Lake was completed. This program monitors the only known population of this invasive species currently in Manitoba, and information gathered through the program will be critical to controlling its spread.

Regulatory and Operational Services Division

- Concluded the 2009 flood fighting activities. The 2009 spring flood crest on the Red River was the second highest recorded since 1852 at most points in Manitoba.

- Thirty staff members from the Division were deployed for the months of April and May to respond to the 2009 flood. Flood fighting activities in the early spring of 2010, included ice jam monitoring and mitigation, coordination with local authorities, assisting with Red River Floodway operation and analyses, and coordination of various activities.

- Operation of flood control works reduced the Red River crest in Winnipeg by 3.05 m (10 ft), preventing in the order of $10 billion of flood damages.

- Issued spring flood outlooks as well as daily flood reports and forecasts for streams with high water conditions or flooding. These reports were widely distributed for use by all levels of government, emergency management and the public for both spring floods and summer rain generated events.

- A number of new flood mitigation initiatives were also initiated in 2009 such as the North Red River home buyout program, purchase of ice cutting equipment to enhance the ice jam mitigation program and the purchase of state of the art flow measurement equipment to improve floodway operations.

- Completed substantial improvement on three ice cutter units as part of the provincial ice jam mitigation program, resulting in a four-fold increase in ice cutting productivity.

- Installed real time hydrometric stations Stephenfield Reservoir, Morden Reservoir, Pilot Mound Reservoir and Mary Jane Reservoir.

- Working under the authority of *The Water Rights Act*, staff processed applications requesting the allocation of surface water or groundwater for municipal, agricultural (i.e. livestock), industrial, irrigation and other purposes and processed applications for drainage works.

- Developed new requirements for surface and groundwater projects; all new projects require the issuance of either a Development Authorization for surface water projects or a Groundwater Exploration Permit for groundwater sourced projects in advance of project works proceeding to construction.

FAITS SAILLANTS

Division des services écologiques

- Affectation de 300 000 $ à la restauration de deux des grands lacs marécageux du Manitoba, à savoir le marais Delta, du lac Manitoba, et le marais Netley-Libau, du lac Winnipeg.

- Coordination du groupe de planification (54 organismes) participant à l'élaboration de l'ébauche du plan de gestion des eaux souterraines de la région du Sud-Est.

- Poursuite du travail entrepris en collaboration avec Ressources naturelles Canada en vue de la production d'un modèle de données hydrographiques géospatiales et d'un ensemble de données topographiques vectorielles qui combine les concepts clés de la hydrographie et de la hydrologie et offre une description géométrique de qualité du régime des eaux de surface du Manitoba.

- Poursuite de l'initiative Écoleau Manitoba, qui vise l'efficacité énergétique et la conservation afin de réduire la quantité d'eau consommée par la population manitobaine. Cette initiative comprenait un financement continu pour le remplacement des toilettes à débit de 13 litres par des toilettes à faible débit de 6 litres dans le cadre du Programme d'efficacité énergétique pour les personnes à faible revenu ainsi que la poursuite des activités d'éducation et de sensibilisation du public.

- Gestion des ressources hydriques Manitoba, en collaboration avec Les Ami(e)s de la Terre Canada, a parrainé des ateliers au Manitoba ayant pour but d'informer les employés provinciaux des techniques de la « voie douce pour l'eau » (water soft path) pour la conservation de l'eau. Ces ateliers constituaient une composante du thème de l'eau de l'Initiative de collaboration pour l'adaptation régionale des Prairies, de Ressources naturelles Canada. Cette approche privilégie la conservation des ressources hydriques comme moyen de réduire la demande en eau. De façon générale, le projet améliorera la capacité d'adaptation des décideurs au changement climatique.

- Achèvement du document de consensus *Framework for the Future* du Programme des districts de conservation, qui offre une vision commune des stratégies et des priorités du programme.

- Des planificateurs de bassins hydrographiques principaux et régionaux ont fourni des services de planification et de soutien pour 17 processus d'élaboration de plans d'aménagement des bassins hydrographiques, exigés par la *Loi sur la protection des eaux*.

- La cartographie des eaux souterraines a été entreprise dans plusieurs régions de la province dans le cadre de plans de gestion intégrés des bassins hydrographiques ou des aquifères. On a fourni des renseignements en matière d'aquifères pour les aquifères d'Oak Lake et de Winkler comme apport continu à l'élaboration de ces plans.

- Des travaux détaillés sur place et dans les bureaux, et visant l'élaboration de modèles, se sont poursuivis dans la région sud-est du Manitoba, afin d'améliorer notre compréhension de l'état des eaux souterraines dans cette région. Cette information aidera à achever le modèle numérique des eaux souterraines qui sera utilisé pour les évaluations de durabilité.

- Le personnel a entamé l'ébauche conceptuelle d'un plan et d'une stratégie de gestion en matière de sécheresse pour la province. Ce travail inclut notamment la collecte de renseignements généraux et la sélection d'indicateurs de sécheresse pour le plan.

- On a entrepris des travaux pour recueillir, analyser et évaluer des données globales hydrochimiques, biologiques et physiques en vue de la rédaction du rapport sur l'état du lac Winnipeg (Lake Winnipeg State of the Lake Report), qui sera réalisé conjointement par Gestion des ressources hydriques Manitoba et Environnement Canada.

- Le personnel a fourni des services de secrétariat et de soutien technique au Conseil de gestion du lac Manitoba et au Conseil de gestion du lac Winnipeg.

- Le ministère a réalisé l'ébauche d'un cadre de travail pour le plan de gestion des pêcheries du lac Manitoba, qui vise à assurer la durabilité à long terme de la pêche pour tous les usagers. On a également organisé un processus de participation publique, entre autres une série de consultations publiques pour connaître les propositions et les suggestions de tous les usagers souhaitant faire part de leurs idées sur la gestion future de la pêche.

- Le personnel a continué de consulter les représentants de la pêche des collectivités autour du lac Winnipeg en vue de créer un nouveau conseil de gestion des ressources de la pêche du lac Winnipeg. Ce conseil a pour mandat de faire en sorte que les pêcheurs participent davantage aux décisions relatives à la gestion de la pêche.

- Achèvement de la première année du programme de surveillance à long terme des populations d'écrevisses américaines dans le lac Falcon. Ce programme surveille ces populations, les seules de cette espèce envahissante connues au Manitoba. Les données recueillies dans le cadre du programme sont cruciales pour lutter contre leur prolifération.

Division des services de la réglementation et des opérations

- Fin des activités de lutte contres les inondations de 2009. La pointe de crue des inondations printanières de 2009 sur la rivière Rouge était la deuxième en importance enregistrée depuis 1852 dans la plupart des régions du Manitoba.

- Trente membres du personnel de la Division ont été mutés pour avril et mai à la réponse aux inondations de 2009. Des activités de lutte contre les inondations au début du printemps 2010 comprenaient : la surveillance et l'atténuation des embâcles, la coordination en collaboration avec les autorités locales, les services de soutien et d'analyse pour le fonctionnement du canal de dérivation de la rivière Rouge et la coordination de diverses activités.

- L'utilisation des ouvrages de contrôle des crues a réduit de 3,05 m (10 pi) la pointe de crue de la rivière Rouge à Winnipeg, permettant d'éviter des dommages causés par les inondations s'élevant à 10 milliards de dollars.

- La Division a fourni des prévisions sur les inondations printanières ainsi que des prévisions et des rapports quotidiens sur les cours d'eaux en crue ou ayant des niveaux d'eau élevés. Ces rapports ont été largement diffusés en vue de leur utilisation par tous les paliers du gouvernement, les services de gestion des urgences et le public au moment des crues printanières et des épisodes de pluie au cours de l'été.

- Plusieurs nouvelles initiatives d'atténuation des inondations ont également été lancées en 2009, notamment, le programme de rachat des résidences aux abords de la rivière Rouge au nord de Winnipeg, l'achat de machines à couper la glace pour améliorer le programme d'atténuation des embâcles, et l'achat d'équipement ultramoderne de mesure du débit pour améliorer le fonctionnement du canal de dérivation.

- On a également terminé les travaux entrepris pour améliorer trois appareils à couper la glace dans le cadre du programme provincial de réduction des embâcles. Cette amélioration permet d'accomplir quatre fois plus de travail.

- Installation de stations hydrométriques en temps réel au réservoir Mary Jane et aux réservoirs de Stephenfield, de Morden et de Pilot Mound.

- Travaillant sous l'autorité de la *Loi sur les droits d'utilisation de l'eau*, le personnel a traité des demandes d'allocation d'eaux de surface ou souterraines à des fins municipales, agricoles (c.-à-d., bétail) et industrielles, et pour les besoins d'irrigation ou autres, et a traité des demandes de travaux de drainage.

- La Division a établi de nouvelles exigences pour les projets d'eaux de surface et souterraines. Tout nouveau projet nécessite la délivrance soit d'une autorisation de développement, pour les projets concernant l'eau de surface, soit d'un permis d'exploration des eaux souterraines, pour les projets portant sur les eaux souterraines, et ce, avant le déroulement des travaux de construction.

ADMINISTRATION AND FINANCE

The Administration and Finance Division provides executive management of programs and management services, including financial, human resource, information technology, and administrative support.

Minister's Salary

The Minister's salary provides the Minister with additional compensation to which an individual appointed to Executive Council is entitled.

Table AF.1
25.1(a) Minister's Salary

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	46	1.00	46	0	
Total Sub-Appropriation	46	1.00	46	0	

Executive Support

This area comprises support staff in the Offices of the Minister and Deputy Minister of Water Stewardship.

The purpose of Executive Support is to develop, implement and oversee policies and programs that are designed to attain, over the long term, the goals set out in the Department's vision and mission statements; advise the Minister on matters relating to the Department; provide policy direction for departmental programs; coordinate departmental communications, activities, and initiatives; and provide administrative support for the Offices of the Minister and Deputy Minister.

Table AF.2
25.1(b) Executive Support

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	534	8.00	534	0	
Other Expenditures	97		187	(90)	
Total Sub-Appropriation	631	8.00	721	(90)	

Administration and Finance

Corporate Services Division provides shared services for the departments of Conservation and Water Stewardship, including: administrative; financial; safety, health and risk management; equipment warehousing; library and public information services; and information technology services. Human Resource services are also provided through a service shared with other departments.

Administrative services includes fleet vehicle coordination, office accommodation and parking administration, environmental impact file searches, records management, coordination of departmental French language services, and compliance with *The Freedom of Information and Protection of Privacy Act*.

The Conservation and Environment Library supports access to print and electronic specialized information resources for Manitoba Conservation, Manitoba Water Stewardship, Environment Canada in Winnipeg, the Canadian Council of Ministers of the Environment, and the public. Interlibrary loans are coordinated with other Libraries and Educational Institutions. Current information related to the mandates of each partner organization is made available to staff and to the public.

The departmental warehouse is the equipment/supply storage and mobilization point for branches and the Fire Operations Centre. In emergencies, such as fire and flood, the warehouse becomes the logistical support base for all equipment.

Key Results Achieved:

In the 2009 calendar year, 55 requests for information were processed under *The Freedom of Information and Protection of Privacy Act*.

In the 2009/10 year, the library responded to over 4,000 requests for information both from staff and the public, and over 782 items were added to the physical collection.

The Department continues to implement its French Language Services Plan to reflect current operations and in keeping with the *Chartier Report* on French Language Services. Translation of documents and the website occurred in 2009/10 and participation in the Bilingual Service Centres continued.

Financial Services

The Financial Services Branch develops, communicates, monitors and evaluates departmental financial policies, systems, processes and procedures to ensure the effective, efficient and economical operation of departmental financial functions in compliance with requirements of the Department, Treasury Board, the Department of Finance and the Office of the Auditor General.

Key Results Achieved:

The Branch provided financial support and leadership to all branches, regions, and business units of the departments of Conservation and Water Stewardship, including:

- timely completion of estimates information, detailed budget, forecast and other financial reports;
- adherence to departmental and Government policy and procedures related to financial operations;
- provision of quality financial information to departmental managers to enable proper management of programs;

- prompt and accurate payment of accounts payable;
- collection and deposit of all revenues and receipts to which the Department was entitled;
- capital asset financial planning and management;
- advice, guidance and administration related to contracts and grants;
- overall comptrollership support; and
- timely and convenient sale of angling licences to the public.

The Licensing Section managed a province-wide network of 778 private and 139 departmental licence vendors through which convenient access was provided to the public for angling, hunting, migratory waterfowl, trapping, fur dealer, park vehicle entry, camping, arborist and various other licences, permits and related information (e.g., Anglers' Guide, Hunting Guide, Trapper's Guide). For the period April 1, 2009 to March 31, 2010, the Licensing Section recorded 592,813 transactions with net revenue of $8,582,777.03. Vendor activity for the same period included 44 new appointments, 54 discontinuances, 12 suspensions, and 23 reinstatements. A total of 720 private vendors are located in rural areas.

The Public Information section provided information to the public regarding the numerous programs delivered by the Departments of Conservation and Water Stewardship. This service was provided in person, by telephone, Internet and mail, including the following responses to requests for information and assistance in 2009/10:

- 35,444 direct telephone requests to the Information Officers;
- 33,332 calls were received by the automated Public Information Line, of which 10,698 were handled directly by the line;
- 72,416 in person requests;
- 1,095 requests through the Internet; and
- 4,968 information packages were mailed.

The Revenue Management section managed the collection, security, deposit and reporting of revenue for over 50 revenue streams for the Departments of Conservation and Water Stewardship. The section provided assistance with the delivery of various programs including the Cottage Lot Draw, Seasonal Camping Draw and the Parks Reservation Service. The section's Winnipeg Cashier's Office handled 6,360 direct sales totalling $2,704,111 and processed over 14,100 mailed remittances from customers and departmental field offices totalling $23,784,100. Credit cards were accepted at 45 locations, of which 39 also accepted debit cards.

Human Resources Services

Staffing

Staff provided advice and guidance on all aspects of Human Resource Management including: labour/employee relations; classifications; pay & benefits; organizational review and development and employment equity.

There were 89 staffing activities of which 29 were through competitive appointments; 13 direct appointments; 8 acting status appointments; 5 lateral transfer appointments; 31 term & departmental appointments, 2 Order-In-Councils & 1 other staffing transactions. In addition, HR processed 9 seasonal departmental recalls throughout the year. Guidance and advice were provided on 215.75 Regular Employees and 8.31 Departmental Employees. There were no selection appeals during the last fiscal year.

Provided guidance and advice to management on 16 outstanding labour relations issues, including appropriate courses of action and negotiating settlements or resolutions to resolve issues before the formal grievance stage. There were no formal grievances initiated during this period.

Classification

14 positions were reviewed and completed in 2009/10. There were no classification appeals.

Pay and Benefits

- Processed pay and benefits for 215 staff and provided guidance and advice on pay administration issues.
- Provided guidance and advice on implementation of organizational changes and the maintenance of organizational charts for the department.

Employment Equity

- Continued to advise and guide staff in regards to Employment Equity, a consideration in all staffing & acting status activities.
- Liaised with schools and organizations to promote careers within the department.
- Participated at a number of Career Fairs.
- Developed a Diversity and Employment Equity Strategy and a Persons with Disabilities Employment Equity Strategy.

Table AF.3
Employment Equity Representation: April 1st, 2005 to March 31st, 2010

Fiscal Year	Total Employees		Male		Female		Aboriginal		Persons with Disability		Visible Minority	
	#	%	#	%	#	%	#	%	#	%	#	%
2005-06	284	100	225	79.23	59	20.8	33	11.6	8	2.8	12	4.2
2006-07	173	100	122	70.5	51	29.5	21	12.1	5	2.9	7	4.0
2007-08	190	100	124	62.3	66	34.7	20	10.5	5	2.6	11	5.8
2008-09	210	100	139	66.2	71	33.8	28	13.3	9	4.3	16	7.26
2009-10	215	100	143	66.5	72	33.5	28	13.0	8	3.79	20	9.39
Government Goal				50.0		50.0		14.0		7.0		8.0

Table AF.4

25.1(c) Administration and Finance

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	361	5.00	310	51	
Other Expenditures	40		65	(25)	
Total Sub-Appropriation	401	5.00	375	26	

Information Technology Services

The Branch provides internal information technology services and expertise, including technology and business consulting, systems analysis, design, implementation, corporate database management, and development and management of a yearly department-wide information technology systems plan. The Branch develops and maintains the Manitoba Land Initiative spatial data warehouse.

Table AF.5
25.1(d) Information Technology Services

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	348	1.00	318	30	
Other Expenditures	14		15	(1)	
Total Sub-Appropriation	362	1.00	333	29	

ECOLOGICAL SERVICES

Administration

The office of the Assistant Deputy Minister provides the necessary program and policy direction and coordination for the Ecological Services Division to ensure the sustainable management, allocation, and conservation of water by developing new policy direction and ensuring existing policies and procedures are followed. The office oversees funding, negotiates and administers grants and contracts, monitors efficiency and effectiveness of expenditures, and guides provincial input into transboundary water management issues. In addition, the Assistant Deputy Minister sits on the following boards, councils, and commissions:

- International Joint Commission's International Red River Board
- International Joint Commission's International Souris River Board
- Red River Basin Commission
- Lake Winnipeg Stewardship Board
- Federal - Provincial Lake Winnipeg Basin Committee
- Board of Directors, Lake Winnipeg Research Consortium Inc.
- Lake of the Woods Multi-Agency Working Arrangement
- Alternate Member, Prairie Provinces Water Board
- Working Group on Canadian Recreational Water Quality Guidelines
- Western Water Stewardship Council
- Netley/Libau and Delta Marsh Restoration Working Group
- Canada – Manitoba Fisheries Advisory Committee

Table EC.1
25.2(a) Administration

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	186	2.00	162	24	
Other Expenditures	52		68	(16)	
Grants	13		25	(12)	
Minor Capital	148		188	(40)	
Total Sub-Appropriation	399	2.00	443	(44)	

Planning and Coordination Branch

Administration

The Planning and Coordination Branch, through the four sections of Watershed Planning and Programs, Basin and Aquifer Planning, Information and Knowledge Management, and Policy and Legislation, leads, directs and coordinates:

- the strategic planning process of Manitoba Water Stewardship;
- the development of provincial water policy and legislation;
- the provision of advice and secretariat support to the Manitoba Water Council;
- the implementation of the watershed planning provisions of *The Water Protection Act*;
- the provision of advice and support to Conservation Districts Boards to enable the effective delivery of their mandate to deliver conservation-based soil and water programs within local communities;
- the development of basin, aquifer, and major water body sustainable management plans;
- the review of proposed developments to ensure consistency with legislative requirements and approved watershed plans;
- the implementation of business processes that streamline the collection, organization and dissemination of knowledge and information;
- the use of spatial and non-spatial data and services in support of information and knowledge management and decision making activity; and
- website development, development of web services, and active management of website function and content in support of an effective and efficient information network and knowledge distribution methodology.

The Branch is represented on numerous inter-departmental, provincial, national, and international boards and committees including the following:

- Ag-Water Forum – Prairie Region
- Centre Port Canada Advisory Committee
- Canadian Council of Ministers of the Environment – Environmental Planning and Protection Committee
- Partners FOR the Saskatchewan River Basin
- Prairie Habitat Joint Venture
- Red-Assiniboine Land Use Evaluation Project
- Red River Basin Commission's Communications Committee
- Canadian Council of Ministers of the Environment – Water Agenda Development Committee
- Canadian Council of Ministers of the Environment – Water Agenda Development Committee (Valuation)(Climate Change)
- Waterlution
- Prairie Regional Adaptation Collaborative – Natural Resources Canada
- Rivers West

- Western Water Stewardship Council's Working Group

Basin and Aquifer Planning

The Basin and Aquifer Panning Section coordinates community-based aquifer management planning, supports aquifer management advisory Boards, leads Manitoba's participation in large basin (inter-provincial and international) planning, coordinates the Water Stewardship Fund, coordinates the department's technical review of Environment Canada Lake Winnipeg Basin Stewardship Fund project proposals and coordinates the department's review of development related proposals and projects.

Key Results Achieved:

- Provided coordination for the 54 agency planning group towards the development of the draft Southeast Regional Groundwater Management Plan.
- Participated on the Red River Basin Commission's Communications Committee and on the Commission's Plan Implementation Committee.
- Participated in the development of the Partners for the South Saskatchewan River Basin's State of the Basin Report.
- Coordinated Manitoba Water Stewardship's technical review of 33 project applications to the Lake Winnipeg Basin Stewardship Fund and provided funding recommendations to Environment Canada.
- Coordinated the review of 1271 development related proposals, as indicated in the following table, to minimize negative impacts on water.

Development Proposals Processed	**#**
The Environment Act and Dangerous Goods and Transportation Act Proposals and Draft Licences	106
Subdivision Applications	649
Development Plans and Zoning By-laws	196
Infrastructure and Transportation Pre-screenings	20
Energy and Mines Proposals	13
Special Projects	6
Crown Land Transactions	281
Total	1,271

Information and Knowledge Management

This Section establishes and manages cross-cutting departmental work teams to provide leadership, innovation, coordination and integration of the department's information and knowledge systems. Activities include coordination and facilitation services to identify information and knowledge gaps and appropriate solutions. Leadership to facilitate integrated departmental solutions is provided to ensure the accurate and timely collection and dissemination of information and knowledge of a scientific, technical, and policy nature to support the department. This Section also provides leadership and coordinates the department's activities related to geographic information system science, internet/intranet, capacity building and education.

Key Results Achieved:

- Continued work with Natural Resources Canada in the production of a geospatial hydrography data model and vector topographic dataset – a dataset that synthesizes key concepts of hydrography and hydrology and provides a quality geometric description of Manitoba surface water systems.
- Provided spatial analysis expertise to numerous projects from across the department.
- Digitized and georeferenced bathymetric maps for use in freshwater research projects.
- Updated the department's GIS license management and reporting software to provide automated usage reporting.
- Managed the Watershed MAPS Project.
- Generated new opportunities for departmental collaboration and productivity, and distributed decision making through implementation of SharePoint and by continued support to GoToMeeting/Webinar software and the departmental Intranet site.
- Provided leadership and improved coordination of information on the department's Internet site.
- Initiated a network drive reconfiguration project – a project that will help to standardize departmental electronic storage. New file classification mechanisms and change to existing network structure will afford the department a new level of storage capability with enhanced file retrieval features.
- Provided a point of contact for: departmental clients' computer-related service requests; diagnosing, resolving and referring computer-related issues; computer product information and delivery; specialized technology implementations; and computer-related training and support.
- Continued work on the department's implementation of PEAK (a management information system). This system helps departmental workgroup clients establish and maintain work priority, deliver on workgroup plan, and work with other groups (internal and external to the department), to understand how priority integrates with these groups, and how each connects to overall departmental strategy and goals.

Policy and Legislation

This Section is responsible for coordinating: the review, amendment and development of legislation, regulations and policy required to support the sustainable management of Manitoba's water; major department-wide strategy documents; the departmental planning process; and responses to public inquiries received through correspondence, website and phone. This section is also responsible for climate change mitigation and adaptation strategies within the department and across government when they pertain to water, as well as the *WaterSmart* Manitoba initiative, a water conservation and efficiency initiative for all Manitobans. Secretariat and policy support is provided to the Manitoba Water Council. Briefing materials are developed and policy support is provided for the department on water issues for the Federal/Provincial Relations Branch (Council of the Federation, Western Premiers Conference) and other information requests of a national or international basis. This section also provides representation for the department on intergovernmental bodies and external agencies, boards and committees.

Key Results Achieved:

- In September 2009, Manitoba Water Stewardship announced funding of $300,000 for the restoration of two of Manitoba's large lake marshes, Delta Marsh on Lake Manitoba and Netley-Libau Marsh on Lake Winnipeg.
- Representatives from Manitoba Water Stewardship participated as members of the Western Water Stewardship Council, which functions as the formal body to facilitate a collaborative

approach to water conservation and watershed management. Three themes are being championed; water efficiency, water governance, and drought preparedness. Manitoba is the lead on drought preparedness.

- Continued development of the *WaterSmart* initiative - a conservation and efficiency initiative to reduce consumption of water by Manitobans. Partnerships were continued with Green Manitoba and Manitoba Hydro, and new partnerships were created with the International Institute for Sustainable Development to continue development of the *WaterSmart* initiative. This included continued funding for the replacement of 13L toilets with 6L low flush toilets under the Low Income Residential Efficiency Program. Activities also include banning the sale of 13L toilets for new construction, as well as continued education and public outreach.
- As a component of the Natural Resources Canada Prairie Regional Adaptation Collaborative Water Theme, Water Stewardship in collaboration with Friends of the Earth Canada hosted workshops in Manitoba aimed at educating provincial staff on the 'Water Soft Path' techniques of water conservation. The water soft path approach encourages water conservation as a means of reducing water demand. The Pembina Valley Conservation District will be used as a pilot project to educate local decision makers. Overall, the project will enhance decision-makers' adaptability to climate change.
- Two hundred and twenty two acres of wetlands were restored under the Wetland Restoration Incentive Program. This program was initiated in order to help restore the condition of wetlands, improve water quality and reduce greenhouse gas emissions through a Conservation Agreement and a one-time payment to landowners.
- Provided technical secretariat services for the Manitoba Water Council. The Water Council was formally established in February 2007 and provides advice to the Minister on policies, programs, plans, and legislation needed to achieve the department's vision, mission and guiding principles. The Council helps to build a broad-based consensus among Manitobans on sustainable solutions to water protection and water management.
- Participated in the Canadian Council for the Ministers of the Environment activities, including the development of a guidance document in water valuation, chairing of the committee on groundwater, and co-chairing the Water Agenda Development Committee.

Watershed Planning and Programs

The Watershed Planning and Programs Section provides secretariat services to the Conservation District Commission, the governing body responsible and accountable to the Minister of Water Stewardship for overall Conservation District Program management and administration under the authority of *The Conservation Districts Act*. The section also manages and provides advisory and planning services to the Conservation Districts Program and coordinates community-based watershed management planning in Manitoba as mandated by *The Water Protection Act*.

Activities include: forming new conservation districts; expanding existing conservation districts; facilitating watershed management planning; building capacity to promote effective board governance; coordinating provincial services; and administering conservation district budgets, provincial grant funding, and provincial policy.

The Watershed Planning and Programs Section continued to build provincial-municipal partnerships in watershed management through the Conservation Districts Program. The program is responsible for land and water conservation programming in the Province's 18 conservation districts, involving 154 member municipal governments. Total program expenditures approached $9.0 million, of which $5.615 million was provided as provincial grant funding.

Key Results Achieved:

- The Conservation District Framework for the Future consensus document articulating a shared vision on strategies and priorities for the Conservation Districts Program.
- The Conservation District Framework for the Future consensus committee appointed members to three sub committees and began work to develop and establish policy recommendations for a new provincial funding allocation formula, board appointment model and a preferred watershed boundary map for all conservation districts.
- Staff managed and administered $5.515 million in provincial grants to 18 Conservation Districts with total program funding administration of almost $9.0 million.
- Staff coordinated expansion activities of the Seine-Rat River Conservation District to include the Rural Municipality of Franklin and the Town of Niverville and the Upper Assiniboine River Conservation District to include the Town of Virden.
- Staff provided support services to 18 Conservation District Boards and staff including all aspects of governance, finance, policy development, programming, operations, planning, and human resources.
- Thirteen public meetings were hosted by five water planning authorities to discuss watershed management topics including land and water management, conservation, drinking water quality and ecosystem protection.
- Senior and regional watershed planners provided planning and support services for 17 integrated watershed management plan processes as required through provisions of *The Water Protection Act* including;

    - Arrow/Oak River
    - Little Saskatchewan River
    - Shell River
    - Birdtail River
    - Icelandic River-Washow Bay
    - La Salle River
    - Willow Creek
    - Whitemud River
    - Seine River
    - East Duck Mountain-Sagemace Bay
    - West Souris River
    - Netley-Grassmere Creek
    - Pembina River (two)
    - Central Assiniboine and Lower Souris River
    - Swan Lake Watershed
    - Westlake

- Public consultations for the West Lake and Willow Creek integrated watershed management plans processes were initiated.
- A memorandum of understanding was signed with the Cooks Creek Conservation District to initiate the integrated watershed management planning process for the Cooks-Devils Creek watersheds.
- Financial support was provided to four Conservation Districts totalling $100,000 to implement completed integrated watershed management plans. A $25,000 grant was provided to the Cooks Creek Conservation District to initiate an integrated watershed management plan.
- Staff participated on the St. Malo Lake Stewardship Working Group (http://www.srrcd.ca/smlsp.php) in association with Seine-Rat River Conservation District, the Rural Municipality of De Salaberry, and the St. Malo Chamber of Commerce.
- An integrated watershed management planning display was developed for extension and awareness at conventions.
- Staff provided updates to the department web site by providing watershed planning and watershed extension information.
- Initiated the development of an integrated watershed management planning website.
- Staff provided assistance to coordinate the Province of Manitoba's first Water Soft Path workshop in Manitoba in partnership with Pembina Valley Conservation District.

- Staff assisted Turtle Mountain Conservation District to begin implementation of Manitoba's first integrated watershed management plan, the East Souris River integrated watershed management plan.
- Staff developed a new budget format for the Conservation Districts Program to facilitate linkages between the budget processes efforts to implement integrated watershed management plans.
- One flood reduction initiative in the Garland River Watershed was coordinated.
- Three Conservation District Commission meetings were held and one workshop was hosted for provincial appointees.
- Coordinated the development and printing of the Conservation Districts Program Annual Report containing the activities and expenditures of all 18 conservation districts.
- A *Conservation Districts Financial and Program Activities Summary* highlighting the activities of all 18 districts and the Watershed Planning and Programs Section was written.
- Staff acted in extension and advisory capacity to the Manitoba Conservation Districts Association, the Association of Manitoba Municipalities, and other partner agencies.
- Staff participated on six interdepartmental land, water, and planning based committees.

Water Stewardship Fund

The Water Stewardship Fund was developed through *The Water Protection Act* for the purpose of providing financial assistance to develop, implement, and promote projects that maintain or improve the stewardship of Manitoba's water. The objectives of the Water Stewardship Fund are: to support and promote research projects and activities that further the goals of *The Water Protection Act*; to encourage the development and implementation of watershed management plans, water conservation programs, and water quality initiatives; to stimulate economic development and diversification that will improve the quality of life and the environment in Manitoba.

Key Results Achieved:

- 16 projects were funded in the 2009/10 fiscal year, totalling $240,830.00.
- 33 project proposals were reviewed, requesting $586,834.21 in total funding.

Table EC.2
25.2(b) Planning and Coordination

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	1,613	26.75	1,888	(275)	
Other Expenditures	509		365	144	
Total Sub-Appropriation	2,122	26.75	2,253	(131)	

Water Science and Management Branch

Administration

The Water Science and Management Branch consists of over 35 scientific and technical personnel, including hydrologists, limnologists, aquatic biologists, hydrogeologists, and support staff who provide services in the following main areas:

- managing and protecting the quality and quantity of ground water and surface water including beach water quality;
- providing hydrological scientific services to support the sustainable use of surface water, to assure the protection of people, and to minimize damage to property from floods and droughts;
- protecting the biological and ecosystem health of Manitoba's water systems including programs aimed at preventing the introduction of invasive species;
- managing transboundary water issues that may have potential to affect the quality or quantity of waters that flow to Manitoba from upstream jurisdictions; and
- developing and implementing programs aimed at restoring the health of Lake Winnipeg.

The branch is organized into three sections: Groundwater Management Section, Surface Water Management Section, and Water Quality Management Section. Services are provided to the public, local governments, other units within the department, other Manitoba provincial government departments, and other provincial, federal, and international governments. The Water Science and Management Branch delivers strong, science-based programs to ensure Manitoba's water resources and environment are managed and protected in a sound and sustainable manner, including the protection of human health and property.

The branch is represented on numerous inter-departmental, provincial, national, and international boards and committees, including the following:

- Lake of the Woods Control Board
- Red River Floodway Operation Advisory Board
- Shellmouth Operation Advisory Board
- Aquatic Ecosystem Health Committee of the International Joint Commission's International Red River Basin Board
- Aquatic Ecosystem Health Committee of the International Joint Commission's International Souris River Basin Board
- Prairie Provinces Water Board - Hydrology Committee
- Prairie Provinces Water Board - Water Quality Committee
- Prairie Provinces Water Board - Groundwater Committee
- Canadian Council of Ministers of the Environment - Water Quality Committee
- Canadian Council of Ministers of the Environment – Water Agenda Development Committee (Groundwater)
- Canadian Council of Fisheries and Aquaculture Ministers - National Aquatic Invasive Species Committee
- Invasive Species Council of Manitoba
- Canada-Manitoba Fisheries Advisory Board – Aquatic Invasive Species Committee

- Lake Manitoba Stewardship Board
- Federal - Provincial Lake Winnipeg Basin Science Sub-Committee
- Canada - Manitoba Hydrometric Agreement Coordination Committee

Activities across the Water Science and Management Branch in 2009/10 included the following:

Activity	Number
Reviewed proposals for livestock operations	6
Reviewed proposals for drainage or culvert Water Rights licences	184
Reviewed proposed development plans, by-laws and subdivisions	151
Reviewed proposals for sale or lease of Crown lands	332
Reviewed proposals for highway culverts, bridges, etc.	7
Reviewed proposals and draft licences under *The Environment Act*, plans for mine closures, pipelines and Canada-Manitoba Infrastructure projects	103
Reviewed proposals for funding under the Sustainable Development Innovations Fund, the Water Stewardship Fund, and the Lake Winnipeg Basin Stewardship Fund	13

Table EC.3

25.2(c).1 Administration

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	210	3.00	199	11	
Other Expenditures	134		156	(22)	
Total Sub-Appropriation	344	3.00	355	(11)	

Groundwater Management

The Groundwater Management Section is responsible for evaluating, monitoring, and protecting the province's groundwater resources. Major activities include: administering *The Ground Water and Water Well Act;* undertaking studies to map the occurrence and quality of groundwater; monitoring groundwater quality and water levels and storing this information in databases; evaluating the sustainable development capacity of aquifers; and carrying out studies to assess the potential for water quality impacts from various human activities.

Key Results Achieved:

- Section staff have participated in watershed and aquifer management programs and supported regional water well surveys being undertaken by conservation districts. Through these efforts, the public and other government agencies have become more informed of groundwater conditions in many parts of the province and homeowners have been made aware of the water quality from their well and their individual responsibilities for well maintenance.
- Groundwater mapping was undertaken in several parts of the province to support integrated watershed or aquifer management plans. Staff from the section participated in the development of eight watershed management plans and one groundwater management plan that are currently in the development stage. Updates on aquifer conditions were provided for the Oak Lake and Winkler aquifers as part of continuing support to these plans.
- Detailed field, office, and modelling work continued in south eastern Manitoba to improve our understanding of groundwater conditions in this area. The information will aid in finalizing the digital groundwater model which will be used for sustainability evaluations. Eleven test holes were drilled to evaluate the extent of sand and gravel aquifers in the Sandilands area, with most of these wells completed as observation points. Additional groundwater sampling and evaluation of aquifer hydraulics was also carried out. Calibration of the three-dimensional groundwater model for the area continued and simulations using the model were carried out, primarily to examine how recharge occurs to the major bedrock aquifer.
- Two studies were conducted to examine surface water/groundwater interaction in the Sandilands area and adjacent to Deadhorse Creek near Winkler. The studies involved test drilling, monitoring well installation, and instrumentation of the monitoring wells. The objectives of these studies are to examine the role of groundwater in maintaining wetlands on the west side of the Sandilands and to better understand the role of Deadhorse Creek as either a recharge or discharge zone in the Winkler aquifer.
- Test drilling, water sampling, and monitoring well installation was carried out south of Brandon to examine the northern extent of a major buried valley aquifer. Twenty-three test holes were drilled. The results were summarized in a draft report and a paper presented at a conference.
- Twenty-five firms were licensed under *The Ground Water and Water Well Act* to drill water wells in Manitoba. The Well Drilling Liaison Officer conducted regular visits and provided communication between the well drilling industry and government. The officer also investigated and resolved a number of complaints.
- The section has continued to work through a federal/provincial committee to support the process for selection of burial sites for livestock mortalities in the event of a mass mortality event.

Key Program Outputs:

- The section operated a groundwater monitoring network consisting of approximately 550 monitoring wells located on major and minor aquifers. Groundwater levels were recorded continuously at most sites while groundwater quality sampling was done on selected wells.

- The groundwater monitoring network update and modification project was continued as part of an ongoing comprehensive evaluation. Seventy observation wells were permanently sealed, including twelve that have been identified as failing, redundant, or no longer required as part of the provincial network. Fifty-eight wells installed as part of a study of agricultural impacts on groundwater were also sealed.
- Approximately 1,200 water well logs and 70 abandoned well reports submitted in 2009/10 or obtained during water well inventories carried out by conservation districts were entered into the GWDrill data base, generally within 30 days of receipt. Approximately 930 groundwater chemistry analyses were also entered into the data base, associated with well logs. Water level information collected from the observation well network was also entered in the HYDATA data base. Information from these data bases is available on request to the public or private sectors.
- The section responded to nearly 800 telephone and written requests for groundwater information and advice from the private and public sectors, and also provided reviews and comments on approximately 150 development proposals under *The Environment Act* and other review processes. Copies of the full water well data base were provided to 66 public and private users and support was provided for additional access to the data base online to the Office of Drinking Water and Conservation.
- The section also worked cooperatively with the Geological Survey of Canada in the development of a national groundwater data base and software to allow mapping and data analysis to be carried out.

Table EC.4

25.2(c).2 Groundwater Management

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	1,032	14.00	972	60	
Other Expenditures	477		685	(208)	
Total Sub-Appropriation	1,509	14.00	1,657	(148)	

Surface Water Management

The Surface Water Management Section provides hydrological and scientific services to support the sustainable use of surface water, to assure the protection of people, and to minimize damage to property from floods and droughts. This is done through activities including the collection of hydrometric data and providing technical direction and advice on the operation of the Red River Floodway and the Portage Diversion. Planning and engineering studies are undertaken to guide water use, allocation, and licensing decisions, to plan and design waterways, and to provide input to multi-disciplinary resource management activities. Hydraulic and hydrologic information is provided to the public. Research and advanced technical studies are conducted in areas such as watershed hydrologic modelling, river geomorphologic and hydrodynamic modelling, and river ice engineering.

Key Results Achieved:

- The Surface Water Management Section provided input and advice on the sustainable supply of water available for allocation and for instream flows under *The Water Rights Act*.
- The section provided technical direction on the operation of the Red River Floodway and the Portage Diversion, produced the 2009 Spring Red River Floodway Operation Report required under *The Red River Floodway Act*, and provided technical support to a number of floodway studies.
- The section developed a draft conceptual Drought Management Plan and Strategy for the province. Work started on the collection of background information and the selection of drought indicators for the plan.
- The section produced monthly Water Availability and Drought Conditions Reports through the analysis of data, and weather and precipitation forecasts, as required.
- The section participated on the Steering and Planning Committee of Agriculture and Agri-Food Canada's "Drought Preparedness Partnership" project. A report was prepared on the province's capacity for drought response and preparedness and actions that are required to increase resiliency and decrease vulnerability.
- The section participated on several of the Red River Basin Commission's working groups. A draft report was prepared on "Water Conservation for Residential, Municipal, Commercial, and Industrial Needs", as part of the Commission's work on "Immediate Drought Response Processes."
- The section provided technical support to the Western Water Stewardship Council's working group on drought management.
- The section managed the hydrometric monitoring needs of the province including the delivery of the Manitoba portion of the Canada-Manitoba Hydrometric program, which forms a part of the National Hydrometric Program.
- The section maintained databases containing historical streamflow and water level information.
- The section managed the Department's real-time water level data acquisition system for drought and flood monitoring.
- The section provided information to North American Drought Monitor and Agriculture and Agri-Food Canada for updating the Monthly Regional Drought Map.
- The section developed discharges for design of waterways and waterway openings and to accommodate passage of fish for infrastructure planning, design, and environmental approvals.
- The section conducted research work developing tools for optimal water supply analysis, hydrological design, and design standards of agricultural drains.

- The section developed a methodology to determine ice thicknesses along the entire Red River in Manitoba using RADARSAT-2 satellite imagery. The method is ready for spring flood operations.
- The Section developed a methodology to characterize river reaches (geomorphic response units) for instream flow needs of the Little Saskatchewan River.

Key Program Outputs:

Operation of stream flow and lake level gauging stations in partnership with the federal government under the Canada-Manitoba Agreement for Water Quantity Surveys	205
Hydrologic analysis of the sustainable supply of water available for allocation under *The Water Rights Act* or provided input to assessments	22
Design and fish passage discharges for Manitoba Infrastructure and Transportation and other sites	337
Prepared Water Availability and Drought Condition Reports	5
Provided hydrological support for the development of a number of integrated watershed management plans under *The Water Protection Act*.	6
One percent flood level analyses	12

Table EC.5

25.2(c).3 Surface Water Management

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	639	7.00	566	73	
Other Expenditures	135		165	(30)	
Total Sub-Appropriation	774	7.00	731	43	

Water Quality Management

The Water Quality Management Section provides services in support of the Department's mission by protecting, maintaining, and where necessary, rehabilitating the quality of Manitoba's aquatic ecosystems. This is achieved through a number of activities including operating and maintaining long-term and short-term water quality programs, managing and providing water quality data to various client groups, responding in a timely manner to emergencies and emerging water quality issues, and developing policy to further protect and enhance Manitoba's surface water quality.

Key Results Achieved

- Regular monitoring of water chemistry and benthic invertebrates from numerous Manitoba streams and rivers was conducted. Data are used to establish long-term trends in water quality, such as nutrient loading, and to qualify general water quality conditions, such as with the Water Quality Index. Benthic invertebrate data are used in concert with water chemistry to further assess the aquatic health of Manitoba's streams and rivers.
- The acquisition of on-going, high, quality laboratory analytical services to meet the needs of Manitoba Water Stewardship, Manitoba Conservation, Manitoba Health and Healthy Living, and Manitoba Agriculture, Food and Rural Initiatives was coordinated by the section. New Chemical Analytical Services and Biological Services contracts were tendered and awarded in 2009/10.
- The Water Quality Management Section, in collaboration with Manitoba Health, leads efforts to provide information to the general public concerning bathing water quality. Bathing water at approximately 60 Manitoba beaches is monitored for densities of the fecal indicator bacteria, *Escherichia coli*, and results are posted on the Department's website. Algal blooms are also monitored for concentrations of toxic algae. Incidents of swimmer's itch and subsequent beach posting are coordinated by the section.
- The Water Quality Management Section is responsible for implementing the Nutrient Management Regulation under *The Water Protection Act (*C.C.S.M. c. W65). This regulation encourages responsible nutrient planning and regulates the application to land of substances containing nitrogen and restricting the development of certain types of nutrient generating facilities in sensitive areas. In 2009/10 educational materials were developed and distributed to the public.
- The section continued collaborative work with Environment Canada and other federal and provincial government departments to reduce nutrient contributions to Lake Winnipeg and its watershed. In 2009/10, the section conducted physical, chemical and biological sampling on Lake Winnipeg from the *MV Namao*. Three scientific cruises on Lake Winnipeg were completed in 2009. The section also led the 2010 winter sampling on Lake Winnipeg in both the north and south basins.
- Work began to compile, analyze, and assess comprehensive water chemistry, biological and physical data for the Lake Winnipeg State of the Lake Report, which will be co-authored by Manitoba Water Stewardship and Environment Canada.
- The Water Quality Management Section provided technical secretariat support to both the Lake Winnipeg and Lake Manitoba Stewardship Boards. In late 2009/10, the Lake Winnipeg Stewardship Board released its evaluation on the progress of Manitoba Government to implement 135 recommendations for action to reduce nutrients to the lake. A 2009 Annual Report was also submitted to the Minister by the Lake Manitoba Stewardship Board.

Key Program Outputs:

- Water quality was monitored at 79 long-term stations across Manitoba during 2009/10. The Section worked in collaboration with Conservation Districts, Environment Canada, the University of Manitoba, and Manitoba Hydro in collecting water quality samples at certain sites. Benthic invertebrates were monitored at 12 sites across Manitoba. In 2009, long-term water quality monitoring efforts were intensified during spring runoff to better quantify nutrient loading.
- Approximately 60 Manitoba beaches were monitored during the summer of 2009. Approximately 115 water samples were collected for analysis of algal toxins and 60 samples were collected for enumeration of cyanobacteria to assess the risk to bather health.
- The section provided technical and scientific support to a variety of audiences, including other government agencies, the public, stakeholders, etc. and recommended activities to alleviate or abate specific water quality concerns.
- The section also provided educational material and support to the public on water quality to foster greater awareness and to empower local stewardship.
- The section worked with a consultant to complete a review of nutrient reduction strategies for small wastewater treatment facilities in Manitoba.
- Data, interpretation, and water quality recommendations concerning improvements to surface water quality were made through the integrated watershed management planning process. The section contributed to six integrated watershed management plans. The section worked closely with Conservation Districts to deliver land-based programming aimed at reducing impacts to water quality.
- The section implemented a cooperative, proactive strategy to prevent the accidental introduction of zebra mussels and other aquatic invasive species to Manitoba. In 2009/10, over 700 inspections were made to aquatic based equipment (such as boats) that were brought into and across Manitoba. In early 2010, Manitoba increased public education efforts to prevent accidental introduction of aquatic invasive species due to the discovery of zebra mussels in the Minnesota portion of the Red River watershed in 2009.

Table EC.6

25.2(c).4 Water Quality Management

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	872	13.00	881	(9)	
Other Expenditures	766		812	(46)	
Total Sub-Appropriation	1,638	13.00	1,693	(55)	

Conservation District and Watershed Assistance

The Conservation Districts Program is a partnership between the Province and the participating municipalities to provide for the conservation, control and prudent use of resources through the establishment of Conservation Districts under *The Conservation Districts Act*.

The mandate of the program is to promote the sustainable use and management of land, water and related resources on a watershed basis. The Province promotes watershed based partnerships with municipalities to: develop integrated watershed management plans; implement voluntary, incentive based programs and projects through partnerships that address risks to water resources and aquatic ecosystems; and ensure that the ecological integrity and overall health of each watershed is protected by empowering the local district boards to make decisions that will have impacts for present and future generations.

Manitoba provides grants to support the Conservation Districts Program in areas such as water protection, water management, soil conservation, water storage, wildlife habitat, historic resources and recreation, public education, administration and a variety of other programs that promote sustainable resource management.

In 2009/10 provincial grants totalling $5,515,000 were provided to 18 Conservation Districts, as follows:

Alonsa	$ 300,000.00
Assiniboine Hills	$ 256,000.00
Cooks Creek	$ 335,000.00
East Interlake	$ 285,000.00
Inter-Mountain	$ 305,000.00
Kelsey	$ 165,000.00
Lake of the Prairies	$ 191,000.00
La Salle Redboine	$ 267,000.00
Little Saskatchewan River	$ 196,000.00
Pembina Valley	$ 410,000.00
Seine-Rat River	$ 385,000.00
Swan Lake Watershed	$ 201,000.00
Turtle Mountain	$ 345,000.00
Turtle River Watershed	$ 463,000.00
Upper Assiniboine River	$ 305,000.00
West Interlake	$ 125,000.00
West Souris	$ 226,000.00
Whitemud Watershed	$ 755,000.00
Total:	$ 5,515,000.00

The annual budgets and activities of the eighteen conservation districts are overseen and directed by the Conservation Districts Commission, chaired by the Deputy Minister of Manitoba Water Stewardship. The Conservation Districts Commission is comprised of ten people having a direct relationship with the program (six deputy ministers, one representative from the Manitoba Conservation Districts Association, one representative from the Association of Manitoba Municipalities, and two private citizens). Watershed Planning and Program staff provides assistance to the Conservation Districts in developing sustainable, integrated watershed management plans, administering provincial grant funding, policy, and monitoring the activities of the Conservation District Program.

The following projects were also supported through funding from Water Stewardship Initiatives:

Project	Amount $(000)	Description
Integrated Watershed Management Planning (IWMP)	$25.0 Cooks Creek Conservation District	Manitoba Water Stewardship supports Conservation Districts with the development of Integrated Watershed Management Plans.
Integrated Watershed Management Implementation and Source Water Protection; Lake Winnipeg Basin Stewardship Fund	$100.0 Upper Assiniboine River (2), Pembina Valley and Little Saskatchewan River Conservation District	The province has committed to Integrated Watershed Management Planning as one of the core sections of *The Water Protection Act*. Core funding through the Conservation Districts Program grants allows the Water Planning Authorities to begin implementation of only a few top priorities identified in the watershed plans. Additional funding support was made available to the Water Planning Authorities through a proposal-based process to implement identified priorities within their plans. This funding also leveraged federal funding from Environment Canada's Lake Winnipeg Basin Stewardship Fund for the projects.

Table EC.7

25.2(e) Conservation District and Watershed Assistance

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits					
Other Expenditures	5,515		5,615	(100)	
Less Recoverable from Other Appropriations	(1,165)		(1,165)	-	
Total Sub-Appropriation	4,350		4,450	(100)	

Fisheries Branch

Administration

Fisheries Branch ensures sustainable development of fisheries resources. Management programs are developed to provide greatest benefits to Manitobans, by maintaining or enhancing populations and habitat, monitoring harvest and habitat alterations, and allocating resources for best return. The Branch directs and reports on programs and budgets, legislation and policy, standards and guidelines, and co-ordination and monitoring. The Branch also administers the Fisheries Enhancement Fund and the Northern Fishermen's Freight Assistance Program. Head Office and Regional Fisheries Managers report to the Fisheries Director responsible for operational decision-making and program delivery.

The objectives of the Branch are to direct effective branch operations through appropriate allocation of staff and budget by identifying management priorities and programs consistent with government policy, and to develop and interpret branch policies to ensure consistency with sustainable development principles and guidelines.

Key Results Achieved:

- The Branch annual planning process continued to link regional and head office program delivery to the Branch Strategic Plan which supports the Department's plan.
- Regulatory variances were prepared as required to address season opening and closing dates and quota adjustments for sustainability purposes.
- Review of fisheries governance continued to assure contemporary approaches to partnering and collaboration on management activities with key interest groups.
- Staff participated in professional training opportunities including conference attendance and training workshops.
- The Branch provided input to policy development in key areas particularly Aboriginal consultation and eco-certification.
- Integrated planning continued by involving user group through the work of the Fisheries Enhancement Fund Project Review Committee in Branch planning exercises. This contributes to the key principle of user group involvement in developing fish management strategies.
- Public education on priorities of fish resource allocation was provided at every opportunity.
- Staff participated on an Interdepartmental Working Croup on Crown-Aboriginal consultations. This working group is assisting Manitoba to move forward in Crown-Aboriginal consultations by bringing together departmental staff with experience and expertise in this area. The Working Group advises departments, branches, regions and government decision-makers on policies and procedures for Crown-Aboriginal consultations.
- The Branch participated in the Inter-jurisdictional Working Group, Aquatic Invasive Species Task Group, Aquaculture Task Group, Species at Risk Task Group, Traceability Task Group and the Aquaculture Task Group reporting to the Canadian Council of Fisheries and Aquaculture Ministers, and the Freshwater Fisheries Committee reporting to the Inter-jurisdictional Working Group. These task groups and committees are working on priority national fisheries issues to develop policies and strategic actions to address challenges and opportunities collaboratively and to facilitate administrative efficiency and effectiveness.
- As a product of the recommended actions in the National Freshwater Fisheries Strategy approved by the Canadian Council of Fisheries and Aquaculture Ministers, Manitoba Water Stewardship and Department of Fisheries and Oceans established a *Canada-Manitoba Fisheries*

Advisory Committee. The committee is designed to renew and strengthen collaborative approaches to increase certainty, consistency, efficiency and effectiveness on priorities of common concern and identify areas of challenge and opportunity.

Table FI.1
25.2(d).1 Administration

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	114	1.00	120	(6)	
Other Expenditures	267		284	(17)	
Total Sub-Appropriation	381	1.00	404	(23)	

Aquatic Ecosystem Management

The Section supports conservation, evaluation, restoration, and enhancement of fish and aquatic ecosystems to achieve a net gain in healthy, productive fish stocks. It also administers the Fisheries Enhancement Fund. The objective of the section is to develop, co-ordinate and evaluate an aquatic ecosystem program that supports the sustainability of aquatic ecosystems and enhances, restores and develops fish habitat providing the potential for the habitat to sustain fish resources and the benefits that they provide Manitoba.

Key Results Achieved:

- A total of 616 development proposals were reviewed which is roughly the same as FY 2008/09.
    - 64 proposals were reviewed under The *Environment Act*. Proposals included, but were not limited to, water treatment plants, wastewater treatment lagoons, water supply projects, irrigation projects, fertilizer storage, sewage treatment plants, and bridges.
    - 27 draft licenses, 25 pre-licensing environmental screening proposals, one Environmental Impact Assessment and five Dangerous Goods and Handling and Transportation proposals were reviewed.
    - Another 494 proposals not requiring review under *The Environment Act* but having potential implications for aquatic ecosystems were reviewed. These included, but were not limited to, Crown Lands sale/lease/permit applications, municipal development plans/amendments/ zoning bylaws, Mines Branch proposals for oil batteries/mine closures/surface leases, and water withdrawal requests.
- Branch staff continued to participate on Technical Advisory Committees for the Pointe du Bois Remediation and Keeyask Generating Station projects.
- Staff participated in the process and selection of artwork for the Lake Friendly Labelling Campaign.
- Fifty three Scientific Collection, 24 Live Fish Handling, and eight salmonid Import Permits were issued.
- As part of the Environmental Effects Monitoring Program, the monitoring of two pulp and paper and 10 mining effluent proposals/programs continued. Environmental Effects Monitoring Program is required by regulation under *The Fisheries Act (Canada)*.
- Fisheries Branch staff continued to participate on the Forest Practices Committee, updating and developing Forest Management Guidelines. The Forestry Guidelines for Terrestrial Buffers were

finalized and the Submission Guidelines for Forest Management Annual Reports are now on Forestry Branch's website for public comment. Forest Health Guidelines are being finalized.

- The Branch was involved in discussions with individuals implementing the National Aquatic Animal Health Program under the Canadian Food Inspection Agency. Proposed regulatory changes to the *Health of Animals Regulations* were reviewed and are expected to be published in the *Canada* Gazette in the spring of 2010. The amendments are to allow inclusion of aquatic animals to provide the authority for mandatory reporting of disease and implementing import controls. Once the regulations are published, laboratories will be required to report on notifiable diseases. Concurrently this spring the proposed *Reportable Disease Regulations* are to come into effect which will require reporting of disease by owners and veterinarians of aquatic animals. Roles and responsibilities of various levels of governments to implement this program are currently being discussed.
- A review of "Containment Standards for Facilities Handling Aquatic Animal Pathogens" was completed. This document was prepared by the Office of Biohazard Containment and Safety Science Branch under the Canadian Food Inspection Agency. The document describes the minimum acceptable physical and operational requirements for facilities working with imported aquatic animal pathogens but also serve as a resource for the design and operating requirements for any aquatic animal containment facility.
- Branch staff participated in the Departmental review of the changes made to the *Navigable Waters Protection Act*.
- Participation on the Manitoba Floodway – Fisheries Technical Experts Committee continued. A consultant worked on the second draft of the Habitat Compensation Plan Report, which outlines the amount of Harmful Alteration, Disruption or Destruction of fish habitat compensation required under the federal *Fisheries Act* due to the floodway expansion project works along with proposed composition sites. The draft report was presented to the committee for review and further comments were provided.
- Branch comments were provided on integrated watershed management plans for the La Salle River Watershed, Arrow-Oak River Watershed, Icelandic River Watershed, and Seine River Watershed.
- The Branch reviewed and provided comments on fishway plans for Shoal Lake and the third street dam at Brandon
- Staff participated in Little Saskatchewan River Instream Flow Technical Advisory Committee meetings.
- Branch staff chaired the Introduction and Transfer Committee and attended conference meetings held by the Canadian Food Inspection Agency regarding the impending establishment of the National Aquatic Animal Health Program. Agenda items included an update on proposed regulations and containment standards for laboratories conducting research programs on aquatic species and diseases.
- Staff participated in the National Introduction and Transfer Committee meeting with regard to Fisheries and Oceans expanded aquaculture mandate that may require adjustments to provincial Introductions and Transfer Committee review processes.
- A Canada/Manitoba Aquatic Invasive Task Group was established under the Canada/Manitoba Fisheries Advisory Committee.
    - The Task Group is co-chaired by Fisheries Branch and Fisheries and Oceans Canada and presently has two members from the department's Water Quality Management Section.
    - The main goal of the Task Group is to work on educational aquatic invasive species initiatives that engage Manitobans and neighbouring jurisdictions in the Hudson Bay Drainage Basin.

- Terms of Reference were developed along with educational material, and initial planning of an intra-jurisdictional workshop.

- Staff continued to participate in the Canadian Council of Fisheries and Aquaculture Ministers – National Aquatic Invasive Species Task Group to cooperate on the implementation of the Canadian Action Plan for Aquatic Invasive Species. The committee has been providing input into a national aquatic invasive species regulatory framework which will be established in the federal *Fisheries Act*. The committee is also working on risk assessment, early detection, and rapid response models that could be adopted into provincial aquatic invasive species plans.
    - Presentations were given to various stakeholder groups (Fish and Game clubs, Cottage Owners Associations, etc.).
    - Displays were set up at the Whiteshell Hatchery Interpretive Centre and the International Peace Gardens for the summer months. Displays were also set up at the Winnipeg Boat Show and the Canadian Fisheries Research Conference held in Winnipeg.
- A multi-year Rusty Crayfish monitoring plan for Falcon Lake was developed. Project objectives include monitoring:
    - The dispersal pattern of the Rusty Crayfish in the lake and impacts on fish species (presence and numbers).
    - Impacts on the size and species composition of macrophyte beds due to feeding Rusty Crayfish.
    - Impacts on benthic invertebrate species (presence and numbers) and the abundance of native species and Rusty Crayfish in the lake.
    - The first year monitoring work along with a project report was completed by hired consultants.
- Staff participated in the Committee on the Status of Endangered Wildlife in Canada – Freshwater Fish Species Specialist Subcommittee meeting that was held in Winnipeg. The subcommittee was provided with additional information on Bigmouth Buffalo and Silver Lamprey populations in Manitoba that was added to upcoming status reports on the two species.
    - A total of 16 fish status reports prepared by the Committee on the Status of Endangered Wildlife in Canada were reviewed and status recommendations provided. One Manitoba species, the Bigmouth Buffalo was included in the review and a status of Special Concern was recommended by the Committee.
    - Comments were provided for a Silver Chub Management plan for Ontario and Manitoba populations. Silver Chub were listed as special concern in 2001 by the Committee on the Status of Endangered Wildlife in Canada Committee.
    - Staff participated in preliminary Lake Sturgeon recovery planning exercises sponsored by Fisheries and Oceans Canada.
- Staff continued to work with the Fairford Fishway Working Group.

- Kindergarten to Grade 12 lessons to be included on the sustainable development education website continued to be developed. Existing Kindergarten to Grade 4 lessons were revised to reflect a new lesson design and format. Grade 5 to 12 lesson revisions were completed for addition to the website, which was promoted at various educational events throughout the province (including the East Interlake Conservation District's Water Days at Norris Lake) and educational institutions throughout the province. The site provides educators and students with on-line fisheries information and grade-specific exercises to meet prescribed outcomes.

- Branch staff continued to participate in Envirothon as the Aquatics Chair, Co-chair of the Test Writing Committee, and on the steering committee. This year's annual theme was Biodiversity in a Changing World, which provided materials and testing to participating high school teams on the physical, biological and chemical parameters of rivers; the diversity of fish species that have adapted to river and stream systems; sampling protocol and proper equipment use; the effects of land management practices; as well as the impact of introduction of aquatic invasive species on aquatic ecosystems. This year the competition was held at the International Peace Gardens with 35 Manitoba school teams entered.

- Staff developed and supervised the Assiniboine River Instream Flow Duration Curve contract. The contract was designed to provide best assessments of several specific fish species' needs at various flows for each of four sample reaches of the Assiniboine River throughout the open-water season. Fisheries Branch staff have been and continue to integrate these results with other flow requirements to develop final recommendations for the Assiniboine River and to make them operationally relevant to dam operators.
- The Little Saskatchewan Instream Flow Needs study, which included extensive field sampling, development of geomorphological, water quality and connectivity work continued. Part of this work involved the development of new methods to determine geomorphological requirements using multivariate statistical analysis of remote sensing data. This work is ongoing and it is expected to be applied to other instream flow needs studies in the future.
- The Whitemud Instream Flow Needs Study, which included biological, geomorphological, water quality, and connectivity work, continued.
- Fisheries staff created and developed, with other professionals from Manitoba Water Stewardship and Fisheries and Oceans Canada, an informal instream flow working group. This group began work on Red River instream flow needs for the International Red River Board which reports to the International Joint Commission.
- Staff conducted a micro instream flow study on Kinch creek.
- A preliminary Instream Flow Needs examination on Birch River was conducted as part of a larger water withdrawal request.

Fish Culture

- The Fish Culture Program operates three fish hatcheries for the distribution of fish, ranging in size from fry to adult fish. This is done to meet requirements for commercial, recreational and conservation fish stocking requirements throughout the province.

Key Results Achieved:

- An estimated total of 30.1 million walleye fry were stocked, with 95% marked with Oxytetracycline and stocked into four commercial fishing lakes including 14 million stocked into Lake Manitoba.
- A total of 141 lakes were stocked in 2009. Fish stocking contributions are listed in the tables below.
- Approximately 5,500 people visited the Whiteshell Hatchery Interpretive Centre.

Table FI.2
Distribution of Fish Stocked from Fish Hatcheries

	Fry	Fingerling	12-15 cm	18+ cm	Adult (>30 cm)
Grand Rapids Fish Hatchery					
LAKE TROUT	0	334,785	100,420	0	0
RAINBOW TROUT	2,000	174,600	0	0	0
WALLEYE	1,000,000	0	0	0	230
Swan Creek Hatchery					
WALLEYE	21,350,000	0	0	0	0
Whiteshell Fish Hatchery					
BROOK TROUT	0	0	0	18,000	574
BROWN TROUT	0	0	43,400	22,400	1,060
RAINBOW TROUT	0	143,000	23,100	81,750	0
SPLAKE	0	0	0	4,800	0
WALLEYE	7,800,000	0	0	0	0

Table FI.3
Distribution of Sturgeon and Walleye from Stakeholder Groups

	Fry	Fingerling	12-15 cm	18+ cm	Adult (>30 cm)
Other Sources					
LAKE STURGEON	0	0	9,424	0	0
WALLEYE	0	0	475	0	699

Table FI.4
Total Distribution by Species

SPECIES	QUANTITY
BROOK TROUT	18,574
BROWN TROUT	66,860
LAKE STURGEON	9,424
LAKE TROUT	435,205
RAINBOW TROUT	424,450
SPLAKE	4,800
WALLEYE	30,151,404
Total	31,110,717

Table FI.5

25.2(d).2 Aquatic Eco-System Management

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	1,205	22.31	1,269	(64)	
Other Expenditures	210		209	1	
Total Sub-Appropriation	1,415	22.31	1,478	(63)	

Sport and Commercial Fishing Management

The Section develops, administers, and evaluates management programs and policies for recreational, commercial, and domestic use, including commercial bait fishing and trout farming. It also manages the Northern Fishermen's Freight Assistance Program, distribution and reconciliation of commercial fishing licenses, and fish production information. The objective of the Section is to develop and evaluate the recreational, commercial and domestic fisheries management programs in an integrated manner that ensures sustainability of the resource and maximizes benefits from its use.

Key Results Achieved:

- As a part of Manitoba's delegated role of administering federal government regulations, amendments necessary for the proper management of Manitoba's fisheries resource were completed and forwarded to the Department of Fisheries and Oceans for inclusion in the Manitoba Fisheries Regulations (1987). One annual amendment package and one closed-time project amendment to the Regulations were initiated.
- Staff continued participation on the Dauphin Lake Steering Committee to guide Crown-Aboriginal consultations on conservation measures for Dauphin Lake and tributaries. The consultations were part of government's obligation to consult with First Nations and Métis communities in a meaningful way on matters that may infringe on constitutionally protected Treaty and Aboriginal rights when fishing for food.
- Following the post-Goodon (2008) court ruling that recognized Métis have communal harvesting rights to hunt that extend throughout southwestern Manitoba, Manitoba Water Stewardship participated with Manitoba Conservation to continue to develop policies regarding domestic Métis harvesting in Manitoba.
- An evaluation of the Cedar Lake Fishery Restructuring Program was undertaken to conclude the program. The program met its objectives of enhancing the biological and economic sustainability of the Cedar Lake fishery.
- A draft framework for the Lake Manitoba Fisheries Management Plan directed at ensuring the long-term sustainability of the fishery for all users was developed. A public engagement process including a series of public meetings seeking input from all users around the lake interested in sharing their ideas on future management of the fishery was also initiated.
- A Manitoba Special Dealer's License issued by the Freshwater Fish Marketing Corporation permits the licensee to purchase fish from licensed commercial fishers in the Province of Manitoba and to sell this fish within the Province of Manitoba to fish consumers, restaurants and/or retail outlets for consumption in Manitoba. Forty-two Special Dealers Licenses were issued from May 1st, 2008 to April 30th, 2009 with 147,865 kilograms (325,986 pounds) of fish sold within

Manitoba. The species percentage was walleye 81%, whitefish 9%, goldeye 4%, others (perch, tullibee, catfish, mullet, pike, silver bass, pickerel cheeks) 6%.

- For the major commercially fished lakes in Manitoba, employment and production statistics are provided in tables Fl.11, Fl.12 and Fl.13.
- In partnership with Fisheries and Oceans Canada and the Lake Winnipeg Research Consortium, the Branch continued the open water trawling program on Lake Winnipeg utilizing the MV Namao research vessel. Collected data are used to monitor long-term trends of relative abundance and seasonal distribution of different fish species in Lake Winnipeg.
- The Branch contributed fisheries information towards the production of a State of Lake Winnipeg Report. Information included commercial landings of quota species and, spatial and temporal trends in the offshore pelagic fish community.
- Staff attended the International Otolith Symposium in Monterey, California. The symposium brings together leading scientists from around the world to present research and future directions specific to contemporary fisheries research and management.
- The provincial fish ageing assessment unit processed over 5,000 structures for aging and aged over 12,000 structures to support regional fisheries program operations.
- Manitoba Water Stewardship, in partnership with the Manitoba Commercial Inland Fishers Federation, continued the "Long Service Fisher Award" program which recognizes the contributions of commercial fishers to Manitoba's social and cultural foundations and economic well-being, and who have been involved in commercial fishing for 50 years or more. An Exceptional Contribution Award was also created by the Manitoba Commercial Inland Fishers Federation, partnership with Manitoba Water Stewardship, to recognize certain individuals from their organization who have made notable, life-long contributions to Manitoba's commercial fishing industry.
- Manitoba Water Stewardship continued discussions with fisher representatives from communities around Lake Winnipeg to establish a new *Lake Winnipeg Fishery Resource Management Board*. The intent of this lake-wide board is to provide fishers greater participation and input into fisheries management decisions.
- As an interim step towards establishing the new *Lake Winnipeg Resource Management Board*, a *Lake Winnipeg Fisheries Quota Review Task Force* comprised of scientific advisors and Lake Winnipeg commercial fishers was struck to conduct a biological review and determine if quota adjustments are warranted. The Branch provided technical and scientific support to the *Task Force*.
- Based on the success of the initial whitefish optimization quota allocation pilot program on Lake Winnipeg, the Branch extended the program an additional year to provide economic opportunities to fishers by encouraging whitefish deliveries.
- The Branch undertook consultations with fishers, communities, local fisher associations, lake boards, Manitoba Commercial Inland Fishers Federation, Freshwater Fish Marketing Corporation and other stakeholder interests to share information and requirements of eco-certification and traceability processes.
- Moody Marine, Ltd. was contracted to conduct a pre-certification assessment of Manitoba's Northern lakes commercial fisheries. Also, Tavel Certification, Inc. (a division of Moody Marine) was contracted to conduct a pre-certification assessment evaluation on the management, resource status, and fishing practices of the Waterhen Lake walleye commercial net fishery.
- Staff participated on the Canadian Council of Fisheries and Aquaculture Ministers Task Group on Traceability. Terms of Reference were developed to initiate a coordinated and integrated traceability process for Canadian fish and seafood products from wild capture fisheries and aquaculture operations that would address national and international information requirements.

The Task Group has begun to facilitate and encourage the development of a national traceability system (referred to as "Stream 2") integrated within a national agriculture food traceability system.

- The bait industry (consisting of 61 commercial bait fish fishers and 22 leech harvesters) had estimated gross sales of $1,008,840. Forty-seven live bait dealer licences were issued, allowing retail sale of live bait fish and leeches. For statistics related to the bait fishing industry please refer to table FI.15.
- There were 29 licensed fish farmers and over 800 hobby farmers in private waters (Table FI.16). Six operators (brokers/importers and/or hatcheries) distribute fingerlings to hobby farmers each spring. There are six fee-for-fishing operations, where customers pay to fish in privately-stocked ponds or Crown waters. These generally provide easy access to fishing from shore, and are ideal for small children and individuals otherwise unable to angle.
- The Branch published, in partnership with Fish Futures Inc., the 2010 Manitoba Anglers' Guide that summarizes angling regulations, highlights new and proposed regulations, and includes management and other fisheries information. Anglers and user groups continued to play an important role in developing regulations and attention is continued to be focussed on simplifying regulations without diminishing conservation.
- Staff continued to coordinate Winnipeg's Urban Angling Partnership, which also includes the Manitoba Wildlife Federation, Fish Futures, Inc., Mid-Canada Marine Dealers Association, The Complete Angler, City Cats, and the City of Winnipeg. Urban Angling Partnership offers residents and visitors recreational angling opportunities through structured programs, such as Learn to Fish Clinics, Winnipeg Fish Festival, Youth Angling Camps, Fish Winnipeg Media/Corporate Challenge (monies raised for youth angling programs) and Urban Fall Fishing Derby. The program's goal is to encourage wider participation in recreational fishing (Table FI.14).
- Working in partnership with the Manitoba Wildlife Federation and Manitoba Recreation Connections, Manitoba's Recreational Fishing League completed another successful season. The league is designed to provide a community based youth angling program, re-connect youth with the environment around them, and build life coping and self-esteem skills for the future.
- Working in partnership with the Provincial Youth Angling Coordinator (funded through the Fisheries Enhancement Fund), the Branch assisted in the development of a "free" Youth Angling Card. The card is part of an initiative to encourage youth angling and showcase young Manitoba artists through an art competition.
- Branch staff supported the development of the "Gear Up – Tackling the Future" program. This "made-in-Manitoba" program is designed to collect gently used fishing equipment, re-furbish it, and share it with others.
- Staff commenced communication projects to increase Intra-Branch sharing of information through data portals to enhance efficiencies (e.g. SharePoint, web based solutions).
- Information management protocols were initiated to disseminate fisheries information to internal and external stakeholder clients by increasing availability, enhancement and usability of data housing systems.
- An initial electronic conversion of non-electronic regulatory and historical data formats to allow for retention, corporate usage, search / retrieval, and to enhance delivery times to meet requests for historic fisheries information was completed.

Table FI.6

25.2(d).3 Sport and Commercial Fishing Management

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	784	10.00	682	102	
Other Expenditures	68		84	(16)	
Total Sub-Appropriation	852	10.00	766	86	

Regional Fisheries Resources

The objectives of the Regional Fisheries Resources Section is to deliver Fisheries programs at a regional level and to assist in the development and management of related provincial programs, to ensure the maintenance of healthy aquatic ecosystems for the use and well being of present and future generations of Manitobans, to provide input to compliance priorities and to assure the maintenance of long-term sustainability of fisheries resources, and to ensure an effective consultation role on behalf of the Branch with all fishers.

Key Results Achieved:

All Regions

- Continued to work with Manitoba Hydro and Water Science and Management as per the Manitoba and Manitoba Hydro Memorandum of Understanding about Lake Winnipeg Regulation/Churchill River Diversion Monitoring Activities. The Coordinated Aquatic Monitoring Pilot Program, which was launched last year, continued. Environmental monitoring activities conducted by both Manitoba and Manitoba Hydro have been coordinated and are now using common methodology, which provides Fisheries Branch access to fish stock assessment data collected by Manitoba Hydro's consultants. This significantly increases the amount of fish stock assessment data available throughout northern Manitoba. In 2009/10 another workshop was held to follow up on lessons learned form the summer field season and to review possible reporting methods. The workshop included participants from Hydro, provincial and federal representatives, and private consultants. Meetings continued with northern Resource Management Boards, First Nations, and fisher groups to keep them advised of the program. Efforts to address both data management challenges and determining the most effective form to report results to the public were initiated.

Northwest Region

- Regional staff co-chaired the Cedar Lake Resource Management Board and provided input to the Opaskwayak Cree Nation, Moose Lake, and Cormorant Resource Management Boards.
- Staff reviewed and provided recommendations to the Licensing Advisory Committee on applications for outcamps, outfitting licenses and other resource-related tourism activities.
- In conjunction with Manitoba Conservation, staff reviewed and commented on applications for commercial fish camps, recreational cabins and other proposed uses of Crown Land.

- Staff reviewed and provided comments for environmental proposals, including Tolko forest harvesting plans, road access and road closures, Hydro transmission lines, and an orphan mine rehabilitation project at Sherridon.
- Staff provided assistance to Crown Lands with the development of Provincial policies for licensing wild rice harvest and propagation in Manitoba.
- Commercial fishing licenses, bait fishing licenses, fish farming licenses, and derby permits were issued in conjunction with Manitoba Conservation Regional and District offices.
- Regional staff participated in the Saskatchewan River Sturgeon Management Board and managed the Manitoba portion of the sturgeon field program. A total of 270 sturgeon were tagged and released on the Saskatchewan River in 2009, along with 15 recaptures of previously tagged sturgeon.
- Index-netting was completed on Cedar Lake, Moose Lake (Pickerel Channel), Cormorant Lake, and Wekusko Lake.

Northeast Region

- Regional staff participated in the Norway House Resource Management Board along with Regional Conservation and Aboriginal and Northern Affairs staff. Input was also provided to four other Resource Management Boards in the Region. The purpose is to represent Manitoba on the Boards, fulfilling the obligations of specific agreements and to develop meaningful relationships with Aboriginal communities and resource users.
- Staff contributed to the Southern Indian Lake Environmental Monitoring Committee with representatives from the First Nation, commercial fishers and Manitoba Hydro. This is an ongoing Committee that works to address environmental issues on Southern Indian Lake arising from Hydro development. Annual monitoring of whitefish stocks continued and stocks appeared to be in good condition with no indication of year class failures. Walleye stocks continue to remain low for a lake of this size. Two rivers were evaluated for their potential as sources of walleye spawn with success. The Environmental Monitoring Committee plans to set up spawn camps at both locations next year.
- Staff participated in the Nelson River Sturgeon Board and managed their field program. The Board once again obtained grant funding from the Federal Habitat Stewardship Fund and Aboriginal Funds for Species at Risk, significantly increasing its budget for field studies and outreach. The Board operates an ongoing program to raise sturgeon fingerlings for school aquarium programs and release.
- Fish stock assessment netting in five recreationally angled lakes in the Lynn Lake area were completed with funding from the Fisheries Enhancement Fund.
- Fish stock assessment netting in six commercially and domestically fished lakes throughout the region were completed. These met regional fisheries management requirements and supported the Coordinated Aquatic Monitoring Pilot Program.

Eastern Region

- The Non-Lethal Sampling Protocols for assessing fisheries populations on accessible and developed lakes in the Eastern Region were tested successfully. The use of trap nets and electro-fishing methods play a major role in this initiative. This equipment was procured with monies from the Fisheries Enhancement Fund. Non-Lethal Sampling Protocols will allow the Branch to monitor recreational lakes that normally receive heavy angling pressure, without the typical fish mortalities involved with index netting programs.

- All regional walleye and trout stocking programs were completed, and the three-year regional stocking plan was updated. The trout stocking program is a key component of the regional fisheries program and provides angling diversity for a wide variety of users.
- Reviews of all regional environmental licensing proposals, land use applications, resource allocation requests, development proposals and scientific collection permit applications were completed. Fisheries Branch input into these reviews is critical to ensuring the long term sustainability of fisheries and fish habitat in the region.
- Staff successfully accomplished the annual Winnipeg River sturgeon monitoring program. This program has been in place since 1983 and the information gathered will be critical in the long term management of Lake Sturgeon, currently recommended by the Committee On the Status of Endangered Wildlife in Canada for listing as endangered under the federal *Species at Risk Act*.
- Regional staff participated in the development of the Recovery Potential Assessment documents for Lake Sturgeon in Designated Units 4 and 5. Part of the federal *Species At Risk Act*, this process is led by Fisheries and Oceans Canada in conjunction with various government agencies and non-governmental organizations. Staff also participated in the Sturgeon Workshop held in Winnipeg sponsored by Fisheries and Oceans Canada.
- The first year of a long term monitoring program for Rusty Crayfish populations in Falcon Lake was completed. Funded by the Fisheries Enhancement Fund, this program monitors the only known population of this invasive species currently in Manitoba and information gathered through the program will be critical to controlling its spread.
- Supported by the Fisheries Enhancement Fund, the Region completed the second year of the Falcon Creek walleye monitoring project in conjunction with the annual Fish Culture spawn collecting program. Recaptures from the tagging program were in the order of 30 percent. This method allows for a Falcon Lake walleye population assessment using non-lethal means on an annual basis. Falcon and Hamilton Creeks were also assessed for available spawning habitat and utilization by Falcon Lake walleye.
- Regional staff delivered a four day training program in boat electrofishing to fifteen Fisheries Branch staff and three consultants. Trainers were arranged through the Ontario Watershed Science Council with a grant from the Fisheries Enhancement Fund.
- The new electrofishing boat purchased by Sustainable Fisheries, Inc. was used on a variety of projects around southern Manitoba. Projects included static displays at the Dauphin and Swan River fund raising events, stocked trout assessments, live capture/transfer, Lake Trout spawn collecting, lake inventories and walleye stocking assessments.
- The annual Coordinated Aquatic Monitoring Program was completed on Manigotagan Lake and Lac du Bonnet. This long term program is done in conjunction with Manitoba Hydro.

Central Region

- Began the process for the development of the Lake Manitoba fisheries plan, including the development of a platform presentation. The first four public meetings soliciting input were held in March at Lake Manitoba Narrows, Gypsumville, St. Laurent and Langruth. A plan is required to reverse the collapsed sauger stocks, near-collapsed walleye stocks, prepare for the demands of eco-certification, accommodate the newly acknowledged constitutional rights of Métis subsistence fishing, and improve economic benefits from Lake Manitoba.
- Regional staff provided technical expertise to a screening project that will exclude carp from Delta Marsh, including netting and participation in an advisory group.
- Data analysis of the Red River Recreational Creel Survey was completed with funding provided by the Fisheries Enhancement Fund.

- Staff contributed scientific input and analysis for use by the Lake Winnipeg Quota Review Task Force.
- Commercial fishing meetings in communities around Lake Winnipeg were attended. Community meetings represent a critical communication link between the Branch and stakeholders, and provide an opportunity to deliver information to, and receive information from, communities around the lake.
- Regional staff participated in meetings with commercial fishers from Waterhen Lake, Lake Manitoba, and Lake St. Martin, and also met with the Northwest Interlake Water Management Association, the RM of Gimli Drainage Committee, the Fairford Fishway Working Group, and the East Interlake Conservation District.
- Regional staff participated in the regional Integrated Resource Management Team and Block Planning Committee.
- The Lake Manitoba sampling program was extended by two weeks and expanded to include two additional sites. This helped to obtain more scientifically defensible data, which is required to monitor fisheries management plans, such as eco-certification efforts and lake specific adjustments.
- Staff participated on the Technical Advisory Committees for the Netley-Grassmere Watershed Planning process.
- Index netting on Chitek Lake, Waterhen Lake, Lake St. Martin and Inland Lake were completed. Results on performance indicators are pending, but the comparison of catch per net night among these lakes suggests that Chitek and Waterhen are the most productive in the region (Table FI.7).

Table FI.7

Number of fish caught per index net per night in Central Region by Lake

Lake	Walleye	Sauger	Whitefish	Perch	Pike
Chitek	47	n/a	n/a	0	0
Waterhen	33	n/a	<1	4	3
Winnipeg	16	20	1	20	1
Manitoba	11	<1	<1	19	1
St. Martin	2	n/a	11	1	6

- A commercial catch sampling plan was developed in coordination with the Branch aging program to begin collecting commercial catch sampling data for Lake Winnipeg.
- Regional staff reviewed and provided comments on environmental licensing proposals, crown land sales, scientific collection permits.
- Commercial and recreational fishing licenses, commercial bait fishing licenses and fish farming licenses were issued out of the regional office in Gimli as well as various District offices throughout the region. Numerous competitive fishing event permits were issued for fishing derbies and tournaments throughout the region.
- Regional staff reviewed and offered recommendations on allocation requests through the Licensing Advisory Committee process.
- The annual stock assessment was completed, which included index netting and commercial sampling on Lakes Winnipeg and Manitoba. These are Manitoba's two largest commercial net fisheries, and stock monitoring on these two lakes is a key component to Central Region's annual

assessment activities. Commercial samples from Lake Manitoba are analyzed for the presence of fish stocked by the Branch to assist evaluation of the Provincial stocking program.

- Commercial catch samples from Lake Manitoba were collected for comparison to age at maturity.
- Staff delivered presentations to high school groups, fish and game clubs, and cottage associations.
- Staff assisted competitive fishing event organizers to develop their tournaments and with tagging of reward fish.
- Regional Staff managed the Lake Winnipeg whitefish optimization to provide fishers with additional economic opportunities.
- Staff worked with fishers and Natural Resource Officers to implement the spring creek mullet season in the west Interlake region.
- An Index netting program and sampling gear were designed to help evaluate whitefish stocks in Lake Winnipeg with funding from the Freshwater Fish Marketing Corporation.
- Regional staff assisted with the eco-certification pre-assessment survey of the Waterhen Lake walleye commercial gillnet fishery by providing additional data and expertise.
- Regional staff wrote the impact statement for development at Beaudry Provincial Park.
- Upon receiving the first provincial notification of the presence of zebra mussels in the Minnesota portion of the Red River watershed, staff completed modelling of potential zebra mussel impacts on Lake Winnipeg walleye fisheries.

Western Region

- Regional staff consulted with West Regional Tribal Council and other Aboriginal and Métis communities concerning additional conservation measures for the walleye stocks of Dauphin Lake over the course of the year. During the consultation process Manitoba was informed of the importance of the spring fishery to Aboriginal communities. Several proposed management options were reviewed.
- Staff acted in an advisory capacity to 13 Conservation Districts in the region. Staff also participated on the Technical Advisory Committee for the integrated watershed planning process for the Swan Lake Watershed and the Wilson River Watershed. Staff continued to work on the Little Saskatchewan Watershed Plan, Upper Assiniboine River Watershed Plan, and Pembina River integrated watershed management plan.
- Regional staff assisted the Pelican Lake Fish Enhancement committee and the Oak Lake Water and Fish Enhancement committee in concluding their three-year assessment of experimental aeration systems. Staff also continued to assist Game and Fish Associations with their requests and projects related to fisheries enhancement issues in their areas.
- Commercial fishing licenses, bait fishing licenses, fish farming licenses, and derby permits in conjunction with Manitoba Conservation Regional and District offices were issued.
- Completed annual index netting and Lake Winnipegosis, Lake of the Prairies, and Dauphin Lake. Conducted commercial sampling on Lake Winnipegosis.
- Regional stocking of 10,400,000 walleye fry and 467,338 salmonid fingerlings in approximately 80 waterbodies throughout the Western region were completed to supplement natural recruitment and diversify angling opportunities.
- Reviews of environmental licensing proposals, land use applications, water control works licences, and development proposals through the regional Integrated Resource Management

Team and the Block Planning Committee completed with support from Fisheries staff at Head Office. Staff reviewed with Manitoba Conservation and forestry industry representatives Louisiana Pacific's Annual Operational Plans for harvesting near waterways. Approximately 100 harvest blocks and associated crossings were mitigated in collaboration with the Fisheries and Oceans Canada.

Table FI.8

25.2(d).4 Regional Fisheries Resources

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	1,063	15.00	968	95	
Other Expenditures	232		236	(4)	
Total Sub-Appropriation	1,295	15.00	1,204	91	

Northern Fishermen's Freight Assistance

The Northern Fishermen's Freight Assistance program assists marginal commercial operations by partially subsidizing transportation of certain species from selected lakes to Winnipeg. Fishers pay the first 20¢/kg of freight, Manitoba pays the next 45¢/kg, and fishers pay any costs over 65¢/kg. Eligible species are whitefish, pike, lake trout, perch, goldeye, tullibee and sucker. Subsidy payments to fishers are issued weekly by The Freshwater Fish Marketing Corporation on behalf of Manitoba. Fisheries which do not market through The Freshwater Fish Marketing Corporation are paid by the Branch at season end.

Key Results Achieved:

- To ensure expenditure does not exceed the maximum of $410,000 set in 2000, fishers receive an initial payment, usually 70% of their estimated eligibility. They receive final payment at fishing-year end. While a full 30% final payment may not be possible when production is high, a final payment higher than 30% may occur in low-production years. The Northern Fishermen's Freight Assistance paid about $340,130 to 280 fishers for 2009 summer season. Payments to 79 fishers for winter season were about $59,870.

Table FI.9

25.2(d).5 Northern Fisherman's Freight Assistance

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits					
Other Expenditures	410		410	0	
Total Sub-Appropriation	410		410	0	

Fisheries Enhancement Fund

The Manitoba Fisheries Enhancement Initiative was established in 1993 when Manitoba sport fishing groups and commercial fishers indicated a willingness to pay more for their fishing license if a portion went to build fish stocks. Using a notional linkage to this revenue the Fisheries Enhancement Initiative funded over 292 projects throughout Manitoba aimed at strengthening fish populations, improving fish habitat, or fisheries education.

The Fisheries Enhancement Fund was introduced in March 2007 with significant improvements to the enhancement program with new categories, including fisheries research, fish stock assessment and monitoring, fisheries development through capital investment and stocking, fisheries habitat rehabilitation and enhancement, as well as education and outreach initiatives pertaining to fisheries. The project review committee includes broader representation from a number of associations and stakeholders with an interest in enhancing Manitoba's fisheries.

The objective of the Fisheries Enhancement Fund is to ensure that adequate fish stocks exist for the use and enjoyment of current and future generations of Manitobans, to promote local involvement of fisheries resource stakeholders, and to increase public understanding of the importance and value of fish and fish habitat.

Key Results Achieved:

- Staff received 48 project applications of which 36 projects were funded.
- The annual Fisheries Enhancement Stamp Competition was held in September 2009. The winning artwork "Largemouth Bass" painted by Andrew Gillies was unveiled at Oak Hammock Marsh.

Table FI.10
25.2(d).6 Fisheries Enhancement Fund

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits					
Other Expenditures	833		850	(17)	
Grants					
Total Sub-Appropriation	833		850	(17)	

Table F1.11

Licensed Fishers Employed in Manitoba Commercial Fishery, 2008/09

	Northern Lakes	Lake Winnipeg	Lake Manitoba	Lake Wpgosis	Other Lakes	Overall*
Summer						
Licence Holders	438	816	7	38	45	1344
Winter						
Licence Holders	200	167	362	161	180	1070
Annual						
Licence Holders	471	872	362	163	180	2048

Note: Those who fish in more than one area or season, or who fish both as hired persons and licence holders, are counted only once in the appropriate total column.
Commercial fishing licences are issued on a fiscal year basis (April 1st - March 31st). Commercial fishing statistics for 2009/10 were not available in time to be included in this report. They will appear in the annual report for the next fiscal year.
*Annually, licenced commercial fishers hire approximately 1,000 hired men/helpers.

Table FI.12

Commercial Fishing Production (Round Weight kg), Total Value and Employment (Licensed Fishers), 1999/2000 to 2008/09

Year	Northern Lakes		Lake Winnipeg		Lake Manitoba	
	Weight (kg)	$ Value	Weight (kg)	$ Value	Weight (kg)	$ Value
1999-00	3,235,650	5,087,500	5,419,050	16,983,500	1,943,950	2,416,950
2000-01	3,318,650	5,608,800	6,217,850	20,386,750	2,342,400	2,847,050
2001-02	3,188,100	5,341,850	6,237,950	20,380,350	2,115,750	3,797,100
2002-03	3,260,350	5,750,000	6,204,150	20,894,400	2,286,850	2,877,650
2003-04	3,025,250	4,883,100	6,543,300	17,030,250	1,995,650	1,992,400
2004-05	2,813,900	4,299,400	6,380,100	16,724,900	1,362,650	1,046,900
2005-06	2,231,600	3,135,350	6,397,500	16,736,250	1,074,000	1,201,500
2006-07	2,294,400	3,900,400	6,355,550	17,707,500	1,211,950	1,575,500
2007-08	2,140,916	3,013,438	6,201,620	17,797,541	935,164	1,261,735
2008-09	1,891,950	2,926,796	6,818,695	19,623,797	928,023	1,473,616

Year	Lake Winnipegosis		Other Lakes		Manitoba Total		No. of Licensees*
	Weight (kg)	$ Value	Weight (kg)	$ Value	Weight (kg)	$ Value	
1999-00	2,719,850	2,266,250	778,550	951,850	14,097,050	27,706,050	2,153
2000-01	2,753,550	2,004,200	892,250	1,131,450	15,524,700	31,978,250	2,228
2001-02	2,577,000	1,846,600	702,400	917,200	14,821,200	32,283,100	2,156
2002-03	2,681,150	1,416,400	661,250	827,800	15,093,750	31,766,250	2,204
2003-04	2,221,550	1,111,300	1,171,200	1,832,850	14,956,950	26,849,900	2,354
2004-05	1,079,350	842,000	1,113,800	1,826,650	12,749,800	24,739,850	2,404
2005-06	1,343,600	854,000	1,016,600	1,852,500	12,063,300	23,779,600	2,310
2006-07	1,228,900	916,500	1,110,450	1,879,400	12,201,250	25,979,300	2,206
2007-08	1,143,477	799,159	722,618	821,282	11,143,795	23,693,155	2,167
2008-09	1,451,871	1,285,677	1,039,638	1,428,048	12,130,177	26,737,934	2,048

NOTE:
Total value includes both Initial Value and Final Payment.
Commercial fishing statistics prior to 2007/08 were based on a fiscal year (April 1st - March 31st). Statistics from 2007/08 on are based on a "fishing year" (May 1st - April 30th). Statistics for 2009/10 were not available in time to be included in this report. They will appear in the annual report for 2010/11
*Annually, licenced commercial fishers hire approximately 1,000 hired men/helpers.

Table FI.13

Commercial Fishing Production (Round Weight kg) by Area and Total Value by Species, 2008/09

Species	Northern Lakes		Lake Winnipeg		Lake Manitoba		Lake Winnipegosis	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Bass	0	0	3,675	4,594	0	0	0	0
Carp	495	0	29,164	56,199	8,882	115,094	27,217	82,803
Carp Roe	0	0	2,063	996	959	12,307	0	10,426
Goldeye	3,922	209	8,810	945	0	3	1	2
Mullet	226,721	36,963	83,056	11,879	0	313,290	224,794	344,435
Northern Pike	459,067	71,147	93,920	8,182	0	98,114	58,769	540,919
Perch	254	283	20,261	1,887	0	81,758	169	556
Pickerel	474,544	21,606	4,331,947	276,410	0	285,135	92,295	19,251
Pike Roe	0	1,505	0	159	0	479	0	14,641
Sauger	5,642	425	144,951	125,517	0	2,484	1	0
Trout	54,445	0	34	0	0	2	0	2
Tullibee	52,728	3,772	0	0	0	0	0	1
Tullibee Roe	1,571	0	0	0	0	0	0	0
Whitefish	432,969	35,235	1,015,156	582,126	0	9,516	10,900	24,677
Whitefish Roe	8,447	0	16,765	0	0	0	12	0
Total	1,720,805	171,146	5,749,801	1,068,894	9,841	918,183	414,158	1,037,713

Species	Other Lakes[1]		Total Production			Total Value $[2]		
	Summer	Winter	Summer	Winter	Total	Summer	Winter	Total
Bass	0	0	3,675	4,594	8,269	1,485	2,402	3,887
Carp	8,423	33,661	74,180	287,757	361,937	24,753	92,428	117,181
Carp Roe	1,111	3,426	4,133	27,154	31,287	8,127	52,110	60,237
Goldeye	36	3	12,770	1,162	13,932	41,676	3,914	45,590
Mullet	128,818	156,003	663,389	862,571	1,525,960	257,761	317,241	575,002
Northern Pike	162,293	216,899	774,049	935,262	1,709,311	622,762	781,373	1,404,135
Perch	46	24,032	20,730	108,516	129,246	49,613	256,459	306,071
Pickerel	111,115	114,415	5,009,900	716,817	5,726,716	16,316,660	2,751,121	19,067,780
Pike Roe	0	3,703	0	20,488	20,488	0	100,698	100,698
Sauger	340	65	150,935	128,491	279,426	501,883	524,807	1,026,689
Trout	0	0	54,479	4	54,482	38,928	2	38,929
Tullibee	0	1,256	52,728	5,028	57,757	30,392	2,619	33,012
Tullibee Roe	0	0	1,571	0	1,571	9,113	0	9,113
Whitefish	36,662	37,156	1,495,687	688,711	2,184,397	2,116,215	1,691,583	3,807,798
Whitefish Roe	175	0	25,399	0	25,399	141,813	0	141,813
Total	449,018	590,619	8,343,622	3,786,555	12,130,177	20,161,178	6,576,756	26,737,934

1. Includes; Cedar, Chitek, Crab, Dauphin, Inland, Little Limestone, Little Strong, Pelican, Red Deer, St Martin, Swan, Tan, Waterhen, William.

2. Total $ Value includes both initial value and final payments.

NOTE:

Commercial fishing statistics are based on a "fishing year" (May 1st - April 30th). Statistics for 2009/10 were not available in time to be included in this report. They will appear in the annual report for 2010/11.

Table FI.14

Angling Licence Sales and Revenue 1997/98 to 2008/09

	Resident/Manitoba – Senior Conservation			Total: Resident of Manitoba Senior	
Year	Number	Fee $	Revenue $	Number	Revenue $
1997/98	7,878	5.61	36,615.58	7,878	36,615.58
1998/99	8,700	5.61	40,315.00	8,700	40,315.00
1999/00	8,935	5.61	41,411.35	8,935	41,411.35
2000/01	8,532	5.61	39,537.52	8,532	39,537.52
2001/02	8,621	5.61	39,940.81	8,621	39,940.81
2002/03	8,341	5.61	38,657.01	8,341	38,657.01
2003/04	12,256	0	(9,593.98)	12,256	(9,593.98)
2004/05	12,530	0	(12,050.00)	12,530	(12,050.00)
2005/06	12,977	0	(12,491.00)	12,977	(12,491.00)
2006/07	13,923	0	(13,394.00)	13,923	(13,394.00)
2007/08	13,978	0	(13,518.00)	13,978	(13,518.00)
2008/09	14,585	0	(14,069.00)	14,585	(14,069.00)

	Resident of Manitoba-Regular			Resident of Manitoba-Conservation			Total: Resident of Manitoba (includes Sr. licenses above)	
Year	Number	Fee $	Revenue $	Number	Fee $	Revenue $	Number	Revenue $
2004/05	44,885	15.89	669,173.65	73,934	10.28	686,978.52	131,349	1,344,102.17
2005/06	44,851	15.89	668,658.39	71,155	10.28	661,127.40	128.983	1,317,294.79
2006/07	46,810	15.89	697,872.90	74,851	10.28	695,393.28	135,584	1,379,872.18
2007/08	48,997	15.89	730,453.33	71,741	10.28	666,559.48	134,716	1,383,494.81
2008/09	50,196	18.89	898,899.44	72,379	13.28	889,604.12	137,160	1,774,434.56

	Resident of Canada-Regular			Resident of Canada-Conservation			Total: Resident of Canada	
Year	Number	Fee $	Revenue $	Number	Fee $	Revenue $	Number	Revenue $
1993/94	58,833	12.50	706,624.50	73,227	7.50	512,963.00	132,060	1,219,587.50
1994/95	57,783	12.50	694,044.00	77,716	7.50	544,498.00	135,499	1,238,542.00
1995/96	55,235	12.50	663,355.00	76,844	7.50	538,289.00	132,079	1,201,644.00
1996/97	52,158	12.50	626,742.00	75,081	7.50	526,422.50	127,239	1,153,164.50
1997/98	51,859	14.02	676,760.18	73,603	8.41	546,849.23	125,462	1,223,609.41
1998/99	57,381	14.02	748,238.62	84,000	8.41	623,386.00	141,381	1,371,624.62
1999/00	57,567	14.02	750,690.37	84,938	8.41	630,356.58	142,505	1,381,046.92
2000/01	56,092	14.02	731,276.84	85,256	8.41	632,700.96	141,348	1,363,977.80
2001/02	56,951	14.02	742,473.02	86,223	8.41	639,893.43	143,174	1,382,366.45
2002/03	54,801	14.02	714,456.02	81,629	8.41	605,678.89	136,430	1,320,134.91
2003/04	53,995	14.02	703,974.90	82,576	8.41	612,873.16	136,571	1,316,848.06
2004/05	1,906	37.38	69,383.28	8,939	18.69	158,350.91	10,845	227,734.19
2005/06	1,705	37.38	62,055.90	8,495	18.69	150,422.55	10,200	212,478.45
2006/07	1,831	37.38	66,634.78	9,106	18.69	161,263.14	10,937	227,897.92
2007/08	2,101	37.38	76,469.38	9,139	18.69	161,851.91	11,240	238,321.29
2008/09	2,043	40.38	80,495.34	9,626	21.69	199,366.94	11,669	279,862.28

	Non-Resident of Canada – Regular			Non-Resident of Canada- Conservation			Total: Non-Resident of Canada	
Year	Number	Fee $	Revenue $	Number	Fee $	Revenue $	Number	Revenue $
1993/94	8,770	32.50	280,744.00	20,742	17.50	352,905.50	29,512	633,649.50
1994/95	8,299	32.50	265,668.50	21,906	17.50	372,702.50	30,205	638,371.00
1995/96	7,821	32.50	250,369.50	22,448	17.50	381,856.00	30,269	632,225.50
1996/97	6,840	32.50	218,945.50	21,757	17.50	370,199.50	28,597	589,145.00
1997/98	6,712	37.38	244,557.56	23,406	20.56	458,473.36	30,118	703,030.92
1998/99	7,149	37.38	260,237.62	26,223	20.56	513,312.88	33,372	773,550.50
1999/00	7,192	37.38	261,840.96	27,151	20.56	531,532.56	34,343	793,373.52
2000/01	6,130	37.38	223,166.40	29,959	20.56	586,452.04	36,089	809,618.44
2001/02	6,120	37.38	222,788.60	27,716	20.56	542,490.96	33,836	765,269.56
2002/03	6,075	37.38	221,122.50	26,121	20.56	511,251.76	32,196	732,374.26
2003/04	5,974	37.38	217,466.12	24,952	20.56	488,348.12	30,926	705,814.24
2004/05	4,755	51.40	239,777.00	24,089	28.04	651,714.56	28,844	891,491.56
2005/06	4,271	51.40	215,364.40	23,116	28.04	625,376.64	27,387	840,741.04
2006/07	3,694	51.40	186,241.60	21,353	28.04	577,719.12	25,047	763,960.72
2007/08	3,331	51.40	167,975.40	20,448	28.04	553,163.92	23,779	721,139.32
2008/09	2,773	54.40	148,145.20	17,597	31.04	528,931.88	20,370	677,077.08

	Total Regular Licenses		Total Conservation Licenses		Total Licenses	
Year	Number	Revenue $	Number	Revenue $	Number	Revenue $
1993/94	67,603	987,368.50	93,969	865,868.50	161,572	1,853,237.00
1994/95	66,082	959,712.50	99,622	917,200.50	165,704	1,876,913.00
1995/96	63,056	913,724.50	99,292	920,145.00	162,348	1,833,869.50
1996/97	58,998	845,687.50	96,838	896,622.00	155,836	1,742,309.50
1997/98	58,571	921,317.74	104,887	1,041,938.17	163,458	1,963,255.91
1998/99	64,530	1,008,476.24	118,923	1,177,013.88	183,453	2,185,490.12
1999/00	64,759	1,012,531.20	121,024	1,203,300.49	185,783	2,215,831.79
2000/01	62,222	954,443.24	123,747	1,258,690.52	185,969	2,213,133.76
2001/02	63,071	965,251.62	122,560	1,222,325.20	185,631	2,187,576.82
2002/03	60,876	935,578.52	116,091	1,155,587.66	176,967	2,091,166.18
2003/04	59,969	921,441.02	119,784	1,091,627.30	179,753	2,013,068.32
2004/05	51,546	978,333.93	119,492	1,484,993.99	171,038	2,463,327.92
2005/06	50,827	946,078.29	115,743	1,424,435.59	166,570	2,370,513.88
2006/07	52,335	950,749.28	119,233	1,420,981.50	171,568	2,371,730.70
2007/08	54,431	974,898.11	115,306	1,381,575.31	169,737	2,356,473.42
2008/09	55,012	1,127,539.98	114,187	1,617,902.94	169,199	2,745,442.92

Note: Revenue figures are net (less vendor's commission).
Resident of Manitoba Senior's Conservation Licenses were introduced in 1998/99.
Starting with the 1999/00 season – angling licenses will be valid from May 1 – April 30.
License sale statistics for the 2009/10 Annual Report will be based on the most recent complete season (i.e. the 2008/09 season).
Resident of Canada, Non Resident of Manitoba Regular and Conservation Licenses were introduced in 2004/05.

Table FI.15

Bait Fishing Industry Statistics

	Year				
	2005/06	2006/07	2007/08	2008/09	2009/10
No. of licensed bait fish Fishers (frozen & live)	63	63	64	61	61
No. licensed for collection of live bait fish	33	35	36	32	33
No. of leech harvesters	21	24	23	22	22
No. of live bait dealers	50	56	52	42	47
No. of kgs of Frozen Bait Fish Produced	85,750	65,280	65,900	108,350	103,300
No. of live bait fish Produced (dozen)	133,660	129,380	127,180	93,100	78,720
No. of kgs of Leeches Produced	1,720	1,680	1,480	1,500	1,080
Estimated Gross sales					
Live bait fish	$199,200	$222,230	$199,070	$141,670	$143,990
Frozen bait fish	$542,430	$473,340	$531,720	$812,960	$805,650
Leeches	$78,780	$78,590	$73,380	$86,300	$59,200
Total	$820,410	$774,160	$804,170	$1,040,930	$1,008,840

Table Fl.16

Manitoba Fish Farming Statistics

		Year				
		2005/06	2006/07	2007/08	2008/09	2009/10
No. of Licensed Operators		28	29	31	29	29
	Species					
No. of Eggs Imported	Rainbow Trout	15,500	115,000	27,500	114,000	179,000
	Arctic Char	0	0	0	0	0
	Brook Trout	0	0	0	0	0
	Other	0	0	0	0	0
No. of Fingerlings Imported	Rainbow Trout	15,500	120,000	120,800	125,300	109,500
	Arctic Char	0	0	0	0	0
	Brook Trout	0	0	0	0	0
	Other	0	0	0	0	0
No. of Eggs/Fry Purchased in Manitoba	Rainbow Trout	0	0	0	0	0
	Arctic Char	200,000	214,000	30,000	129,000	140,000
	Brook Trout	0	0	0	0	0
	Other	0	0	0	0	0
No. of Fingerlings Purchased in Manitoba	Rainbow Trout	8,100	9,300	6,850	22,750	13,000
	Arctic Char	0	0	0	43,540	41,580
	Brook Trout	0	0	0	200	0
	Other	0	0	0	0	0
No. of Fingerlings Sold	Rainbow Trout	162,200	168,270	170,050	183,800	169,200
	Arctic Char	0	0	30,000	43,540	68,370
	Brook Trout	0	0	0	0	0
	Other	0	0	0	0	0
No. of Kgs of Fish Sold	Rainbow Trout	10,520	10,800	21,100	20,180	7,060
	Arctic Char	7,159	13,180	4,000	30,130	52,110
	Brook Trout	0	0	0	35	0
	Other	0	0	20	0	0
No. of Fingerling Customers		483	496	652	803	845

REGULATORY AND OPERATIONAL SERVICES

Administration

Staff provide direction and program coordination for the Regulatory and Operational Services Division of Manitoba Water Stewardship so that the optimum development, allocation, and conservation of the water resources of the province are ensured. Staff provide administrative and policy direction, control and monitor funding, monitor efficiency and effectiveness of divisional programs, achieving goals consistent with provincial and departmental policies. Programs are administered within budgeted funding and schedules. The Executive Director sits on the following boards, councils, and commissions:

- International Joint Commission's International Red River Board
- Red River Basin Commission
- Member, Prairie Provinces Water Board
- National Hydrometric Administrator Committee
- Board Member, Partners FOR the Saskatchewan River Basin

Table RS.1
25.3(a) Administration

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	458	5.00	454	4	
Other Expenditures	625		623	2	
Total Sub-Appropriation	1,083	5.00	1,077	6	

Flood Forecasting and Flood Response Coordination

The Flood Forecasting and Flood Response Coordination Branch operates a Hydrologic Forecast Centre that provides a hydrologic reporting, forecasting and warning service to all levels of government and the public. Its purpose is to promote public safety, give direction to emergency response and facilitate optimum operation of water control works such as dams, diversions and floodways for flood damage reduction. The Branch also includes a Development Review component that promotes long-term flood damage reduction by ensuring that developments, subdivisions, permits and crown land sales adhere to provincial land use policies regarding the risk of flooding and erosion. The Branch also performs dam operations for flood control and to ensure a sufficient supply of water in reservoirs and rivers and suitable lake levels for recreation and fish, as well as contributing climatic information for the design of water control structures. The Branch performs hydraulic analysis using state-of-the-art hydrodynamic models for flood damage reduction studies and to assess impacts of infrastructure changes such as road and bridge replacements. The Branch operates a provincial network of water level and streamflow gauges and provides hydrometric data in near real time for multiple uses.

Key Results Achieved:

- The Flood Forecast Center and flood response staff of Water Stewardship concluded the 2009 flood fighting activities. The 2009 spring flood crest on the Red River was the second highest recorded since 1852 at most points in Manitoba.
- Spring flood outlooks as well as daily flood reports and forecasts were issued for streams with high water conditions or flooding. These reports were widely distributed for use by all levels of government, emergency management and the public for both spring floods and summer rain generated events.
- River flows and forecasts and lake and reservoir forecasts were provided for operation of floodways, diversions and dams and for deployment of ice breaking equipment for the purpose of flood control and water supply.
- Flash flood watches and warnings were provided for emergency water management and to promote public safety.
- Dams were operated to ensure optimum lake levels for recreation.
- Applications for subdivisions and crown land sales/leases and development permits were reviewed to ensure adherence to land use policies for flood and erosion control.
- Development of a real time weather network continued in collaboration with Weatherbug and the Canadian Wheat Board with financial support from the Emergency Measures Organization and Public Safety Canada.
- The provincial hydrometric network was operated to provide water level and streamflow data in near real time and data was archived for multiple uses.
- Real time hydrometric stations were installed at Stephenfield Reservoir, Morden Reservoir, Pilot Mound Reservoir and Mary Jane Reservoir.
- Hydrologic models were tested on the South Tobacco Creek watershed.
- A web site containing information on precipitation and hydrologic conditions was maintained and regularly updated.
- Staff responded to numerous calls for hydrometeorological information via e-mail, web site and telephone.
- The redundancy of operational monitoring and forecasting was improved through acquisition of faster computers with remote access.

- Succession planning, enhancement and continuity of the Branch was promoted by familiarizing newer staff with procedures and methodologies.

Key Program Outputs:

Activity	Number
Flood Information and Forecast Tables Issued	298
News Releases drafted	62
Spring flood outlooks issued	3
Flash flood watches/warnings or high water advisories issued	5
Precipitation Maps prepared	27
Forecasts and Operations of Shellmouth Dam (gate changes)	12
Operations of Whiteshell recreational dams	19
Briefings of the Shellmouth Operation Liaison Committee	5
Media briefings (City and Rural)	25
Briefing Notes Prepared	5
Special Requests from Senior Management to Deputy Minister level	25
Inter-Agency Emergency Management Committee briefings	6
Forecasting procedures developed for watersheds	12
Flood routing procedures developed and updated	4
Coordination sessions with other water management agencies	15
Responded to requests for hydrometeorological information	415
Presentations at conferences and workshops	3
Conference calls and workshops on development and investigations	6
Calibration of Interconnected Pond Routing Model (ICPR) hydrologic/hydraulic model on South Tobacco Creek	1
Subdivision requests reviewed	649
Crown land sales, leases, permits reviewed	281
Development plans and Zoning By-Law Proposals reviewed	196
Lower Red River Valley Designated Flood Area Program Initiated	1
Licensing Advisory Committee reviews	120
Designated flood area permits	51
Quarry permits	58
Provincial hydrometric stations operated and data archived to standards	110

Table RS.2
25.3(b) Flood Forecasting and Flood Response Coordination

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	727	8.00	666	61	
Other Expenditures	325		243	82	
Total Sub-Appropriation	1,052	8.00	909	143	

Water Control Systems Management

The Branch participates in programs, planning exercises, studies, analyses and other activities related to provincial waterways; water control infrastructure such as agricultural drains, flood control works, and dams and reservoirs; erosion control programs; flood preparedness, coordination and response; and various water management issues regarding drainage and flooding.

Key Results Achieved:

- Participated in flood fighting activities in the early spring of 2010, including ice jam monitoring and mitigation, coordination with local authorities, assisting with Red River Floodway operation analyses, and coordination of various activities.
- Completed substantial improvements on three ice cutter units as part of the provincial ice jam mitigation program, resulting in a four-fold increase in ice cutting productivity. Oversaw the purchase of two radio-controlled Bobcat asphalt saws outfitted for use as ice cutters, the ice breaking work of the provincially-owned Amphibex, the five provincially-owned ice cutters, and the Ground-Penetrating Radar ice thickness monitoring program, in the early spring of 2010, on the Red River at and north of Selkirk and at the Portage Diversion outlet. Continued to work with North Red Community Water Maintenance Inc. on ice jam mitigation work by its Amphibex ice-breaker by establishing annual ice-breaking work plans and assisting with technical issues and problems. Participated on the organizing committee for the Committee on River Ice Processes and the Environment (CRIPE) international conference to be held in Winnipeg in October 2011.
- For the provincial waterway infrastructure, multi-year capital planning was undertaken in concert with Manitoba Infrastructure and Transportation. The works include agricultural drainage and other waterways, water crossings, water control structures, dams and diking systems.
- Development proposals that could affect the provincial waterway infrastructure were investigated and authorization permits were issued outlining the terms and conditions for those developments, to ensure the continued safe and effective functioning of the infrastructure.
- Provided technical and engineering input, advice, planning assistance, assessments, and information for integrated watershed management plans and surface water management plans being developed by watershed planning authorities. Similar technical and engineering services were provided to conservation districts for a variety of water management problems and water infrastructure proposals, as well as for the capital works program planning process in conservation districts that manage large, trunk drainage waterway infrastructure.
- Provided engineering and technical support to the Water Control Works and Drainage Licensing Section for evaluating the effects and technical soundness of drainage or other water control works proposed by applicants for licences of works under *The Water Rights Act*.
- Continued development of emergency preparedness plans for the Morden and Rivers provincial dams and began development of emergency preparedness plans for the Minnedosa and St. Malo provincial dams.
- Continued review and oversight by the Diking Commissioner of the City of Winnipeg's primary diking system.
- Continued participation in the Shoreline Erosion Technical Committee, which reviews proposals for shoreline erosion projects along the shores of Lake Winnipeg, made by local governments and individuals and permitted by the local planning authority. The Committee has members from Manitoba Water Stewardship, Manitoba Conservation, Manitoba Hydro, Fisheries and Oceans Canada, and planning districts, and local municipalities. Initiated plans to expand the geographic scope of the Committee to the balance of southern Manitoba.

- Continued the migration to, and maintenance of, an electronic database of maps, plans, field/survey information and reports regarding provincially-owned water control infrastructure and water management studies. Requests for information and electronic or paper copies from this database were filled and specialized equipment and supplies were maintained.
- Continued to manage the Shoal Lakes study being undertaken under a cost-sharing agreement with a number of local governments. The study is examining a number of options for addressing high lake levels that are causing significant agricultural and infrastructure damages.
- Completed the Rat Creek Diversion and Hydrologic modeling study, which updated the hydrologic analysis and the cost and benefits analysis of a partial diversion of Rat Creek flood flows into the Portage Diversion to reduce agricultural flood damages from heavy summer rainstorms.
- Managed the first phase of beaver dam removal along the Garland and South Pine rivers, which was undertaken by the Intermountain Conservation District to reduce summer-time flooding problems in the area.

Table RS.3

25.3(c) Water Control System Management

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	827	12.00	884	(57)	
Other Expenditures	179		196	(17)	
Total Sub-Appropriation	1,006	12.00	1,080	(74)	

Office of Drinking Water

The Office of Drinking Water was established to coordinate the activities of the province's drinking water program under *The Drinking Water Safety Act*, with the objectives:

- to administer and enforce *The Drinking Water Safety Act* and the regulations, licences, permits, advisories and orders made under it to assure public drinking water supplies are safe, adequate, aesthetically pleasing and acceptable for present and future residents of, and visitors to, Manitoba;
- to provide a program that employs flexibility and prevention as an effective approach to public health protection;
- to provide guidance, technical expertise, up-to-date information and educational materials about drinking water safety to water suppliers and the public;
- to promote involvement of public, government agencies and departments, communities and private organizations in the decision-making process, and to share expertise and to facilitate co-operative efforts in drinking water programs and policies which ensure safe drinking water; and
- to provide adequate, clear, concise, and publicly visible documentation of results.

Key Results Achieved:

- Reviewed and approved 75 design plans and specifications for the construction of public and semi-public water supply and distribution systems and wastewater collection and pumping systems to ensure compliance with guidelines and standards. Hired an additional Approvals Engineer.
- Issued 45 permits and 150 licenses for the construction and operation of public water supplies and identified semi-public water supplies.
- Undertook 441 routine and unscheduled on-site inspections of water systems to verify their adequacy and reliability for producing and distributing safe water.
- Monitored the operation of water treatment and distribution works to ensure compliance with Operating Licence conditions.
- Prepared and distributed to owners, 429 public water system report cards (annual audits) their performance with regard to meeting the conditions outlined in their operating licence.
- Monitored water quality (raw and treated) through the evaluation and reporting of results of laboratory water quality analyses for 429 public water systems and 185 semi-public water systems.
- Created a Research and Program Support Unit and hired a Manager to lead the unit and a Drinking Water Information Coordinator to coordinate the improvement of data management processes for the unit.
- Worked cooperatively with the Department of Health (Office of the Chief Medical Officer of Health and Regional Medical Officers of Health) to develop and implement policies and guidelines related to public health and drinking water safety.
- Worked cooperatively with the Department of Health to develop and publish factsheets for private well owners relating to nitrates and trace elements, and to implement a public education campaign encouraging private well owners to test their well water quality regularly for bacteria, nitrates and trace elements.
- Obtained approval to increase the subsidy for private well bacteria testing during the flood season, implemented a public education campaign to increase awareness of the need for water quality testing in flood affected areas, and improved the process for pattern surveillance of bacterial test results from the private well subsidy program.
- Participated in the co-ordination of operator training and certification programs to ensure compliance with the requirements of the Water and Wastewater Certification Regulation administered by Manitoba Conservation.
- Facilitated the provision of on-going educational opportunities (workshops and seminars) for Water and Wastewater System Operators through representation on the Manitoba Water and Wastewater Association Board.
- Provided Operator Training by lecturing at the Red River College Water and Wastewater School (annual one week program).
- Participated in the development of integrated watershed management plans as they relate to drinking water source protection. Reviewed and provided input into five Integrated Watershed Management Plans.
- Provided on-going technical support to Water Plant Operators in need of such service.
- Provided technical support for emergency response services to environmental accidents involving drinking water.
- Represented the department on various national committees and organizations to achieve efficiencies and facilitate a pro-active response to emerging issues.

Table RS.4
25.3(d).1 Office of Drinking Water

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	1,302	21.00	1,354	(52)	
Other Expenditures	1,233		1,536	(303)	
Total Sub-Appropriation	2,535	21.00	2,890	(355)	

Water Control Works and Drainage Licensing

This program area ensures that private and municipal drainage, dams and other water control works are constructed, established, operated or maintained in accordance with *The Water Rights Act*.

Key Results Achieved:

- The Section has continued progress on implementing the Drainage Regulation Action Plan. This action plan consists of the following:
  - Legislative change – added regulations to *The Summary Convictions Act* to allow for set fines for related offenses under *The Water Rights Act*. Fines range from $190 to $2,324 per offence.
  - Licensing – Water Control Works and Drainage Licensing Section received more than 1600 new applications and concluded over 1200 applications for construction of water control works. More than 400 subdivisions were reviewed by section staff.
  - Enforcement – Water Control Works and Drainage Licensing Section received approximately 400 complaints and concluded over 250 complaint files. Several offenders were charged and given ministerial orders in various locations across the Province in order to encourage and achieve compliance with legislation.
  - Policy review – A policy governing the Expedited Authorization of Minor Works was implemented in the fall of 2009. The authorization process allows for Water Resource Officers to issue licenses directly for water control works that are considered minor by definition and unlikely to cause impacts. Application rates for minor water control works increased as there was general acceptance of the approach.
  - Communications – Presentations regarding the Drainage Regulation Action Plan to municipal councils, Association of Manitoba Municipalities, Manitoba Conservation Districts Association and Keystone Agricultural Producers. The policy regarding Authorization of Minor Water Control Works was promoted through presentations, letters to municipalities and conservation districts and through print media.
  - Tracking Progress – Information on licensing files has been input into a database. Complaint data input is ongoing. The database was developed in 2008/09 to enable province-wide tracking of licensing and enforcement matters related to water control works and *The Water Rights Act*.

Table RS.5

25.3(d).2 Water Control Works and Drainage Licensing

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	1,639	25.00	1,587	52	
Other Expenditures	507		546	(39)	
Total Sub-Appropriation	2,146	25.00	2,133	13	

Water Use Licensing

Water Use Licensing consists of two distinct program areas: the licensing of water abstraction projects as required under the provisions of *The Water Rights Act* and the licensing of water power (hydroelectric) projects under *The Water Power Act*. The common theme of both programs is the allocation of a valuable provincial Crown resource for a beneficial purpose while ensuring the protection of the interests of all Manitobans and potentially directly affected third parties. The academic backgrounds of staff include engineers, hydrogeologists, environmental scientists, engineering technologists, and a database management specialist.

Water Rights Licensing Program:

Working under the authority of *The Water Rights Act*, staff of the Water Rights Licensing program process applications requesting the allocation of surface water or groundwater for municipal, agricultural (i.e. livestock), industrial, irrigation and other purposes. All new projects require the issuance of either a Development Authorization for surface water projects or a Groundwater Exploration Permit for groundwater sourced projects in advance of such projects proceeding to construction. Water rights licences are issued to the applicants subsequent to the satisfactory completion of a project. In addition to these instruments, water rights licensing staff also respond to requests to divert water for short term purposes, for example the hydrostatic testing of petroleum products pipelines, for dust suppression purposes on road construction projects, etc. In such cases a letter of authorization is normally issued rather than a formal licence.

Two staff members are located in Carberry at the Canada-Manitoba Crop Development Centre. Both are directly involved in licensing irrigation projects.

Water Power Regulation and Crown Land Development Review:

The Water Power Licensing program is responsible for two important sub-program areas, the most high profile of which is the licensing (or re-licensing) of new and existing water power generating stations. Currently, there are 18 water power projects that have been licensed, some of which were first licensed over 50 years ago. Licensing continues to react to evolving societal expectations regarding issues of stewardship of the resource and equity issues for both locally affected residents and Manitobans as a whole. It is anticipated that the water power licensing process will continue to evolve in the coming decade. At present, five staff are employed with this sub-program, which includes the following four primary tasks: (1) issuance of water power licences; (2) monitoring of licensing terms and conditions; (3) review of The Water Power Act and Regulation; and (4) conducting of Crown-Aboriginal consultation under Section 35 of the Constitution Act (1982).

The other sub-program is concerned with the assessment and transfer of lands to Canada to fulfill obligations under the Treaty Land Entitlement program and the disposition of applications to develop Crown land parcels located within the Water Power Licence Areas and/or Water Power Reserve Areas. Although these projects have a short time frame compared to the licensing of water power projects they are of great importance to the applicant.

Table RS.6

25.3(d).3 Water Use Licensing

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits	1,386	22.00	1,436	(50)	
Other Expenditures	182		163	19	
Total Sub-Appropriation	1,568	22.00	1,599	(31)	

WATER STEWARDSHIP INITIATIVES

Water Stewardship Initiatives provides funding for scientific research, special projects, incentives and activities that further the protection and stewardship of Manitoba's water resources and aquatic ecosystems. Water Stewardship Initiatives funding also assists in the development and implementation of watershed management plans and water conservation programs. Funding also promotes and supports priority initiatives and partnerships toward achieving Manitoba's ambient water quality, source water protection, riparian and wetland protection, water resource management, flood protection, and water-related economic development objectives.

The following initiatives were supported in 2009/10:

Development and Implementation of Legislation, Regulations, and Innovative Policies

Support was provided for the development of innovative policies to protect and restore wetlands including restoring the health of the Province's large marshes, Delta and –Netley-Libau, to implement new legislation and regulations including nutrient management, and to assist in developing new national policies related to in-home storage reservoirs for drinking water.

Water Quality Science Protection Initiatives

Support was provided for operation of the Lake Winnipeg Research Consortium's ship the *MV Namao*, to undertake water quality and fisheries science on Lake Winnipeg including research into *E. coli* at Lake Winnipeg beaches, to protect Manitoba from transboundary activities such as Garrison Diversion and Devils Lake, to support work of the South Basin Lake Winnipeg Mayors and Reeves in its Lake Friendly Product Campaign, plus other similar initiatives.

Fisheries Science Initiatives

Support was provided to conserve fish stocks on Lake Dauphin, to undertake the necessary assessments to be in position to eco-certify the Province's fisheries, and to work towards establishing a new fisheries resource management board on Lake Winnipeg.

Groundwater Science Initiatives

Support was provided to install monitoring wells aimed at better understanding the groundwater resources in the Sandilands Aquifer Complex region and in south-west Manitoba where, in this latter area, high quality water is often in limited supply. Support was also provided to assist in preparation of the management plan for the south-east regional groundwater system.

Hydrological Science Initiatives

Support was provided to the operation of approximately 200 hydrometric monitoring sites across Manitoba, operated in partnership with Environment Canada and Manitoba Hydro.

Watershed Planning Initiatives

Support was provided to conservation districts to assist with the development of integrated watershed management plans and to implement such plans once developed.

Water Control and Risk Management Initiatives

Support was provided for the preparation of emergency preparedness and response plans for a number of the province's dams, for the operation of ice jam mitigation equipment such as the Amphibex, and for work related to mitigating the effects of flooding.

Boards and Committees to Support Citizen Engagement Initiatives

Support was provided to the Department's boards and committees including advisory bodies such as the Manitoba Water Council, lake stewardship boards, plus others as well as those assisting in the engagement of local citizens in water governance such as the Partners FOR the Saskatchewan River Basin.

Water Conservation and Drought Management Initiatives

Nominal support was initially allocated to assist in the development of drought management plans for Manitoba. However, this work was ultimately covered elsewhere in the Department's budget.

Information and Data Management Initiatives

Support was provided to assist in upgrading the province's extensive library of orthophotography.

	$000s
Development and Implementation of Legislation, Regulations, and Innovative Policies	799
Water Quality Science Protection Initiatives	556
Fisheries Science Initiatives	271
Groundwater Science Initiatives	279
Hydrological Science Initiatives	1113
Watershed Planning Initiatives	125
Water Control and Risk Management Initiatives	965
Boards and Committees to Support Citizen Engagement Initiatives	416
Water Conservation and Drought Management Initiatives	-
Information and Data Management Initiatives	34
Total	$4,558

Table WS.1

25.4 Water Stewardship Initiatives

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
Salaries and Employee Benefits					
Other Expenditures	4,558		5,316	(758)	
Total Sub-Appropriation	4,558		5,316	(758)	

Costs Related to Capital Assets

The department expended the annual amortization costs of all completed assets based on the useful life of each asset. Assets purchased or constructed in 2009/10 were expended at one-half the annual amortization rate. The amortization expense also included the portion of corporate information technology projects attributable to the department.

Table CI.1
25.5 Costs Related to Capital Assets

Expenditures by Sub-appropriation	Actual 2009/10	Estimate 2009/10		Variance Over/(Under)	Expl. No.
	$(000)	FTE	$(000)	$(000)	
(a) Desktop Services - Enterprise Software Licences	39		39	0	
(b) General Assets					
(1) Amortization Expense	239		239	0	
(2) Interest Expense	43		43	0	
Total Sub-Appropriation	**321**		**321**	**0**	

PART B – CAPITAL INVESTMENT

General Assets provides for the refurbishment and upgrade of facilities and the acquisition of machinery and equipment.

Equipment purchases in 2009/10 totalled $102 and included:

• Three – Four-wheel-drive All Terrain Vehicle	$ 36
• Specialized Truck Cap	10
• Snowmobile	12
• GPS Mapping Instrument	13
• Boat, motor and trailer	31
	$ **102**

Table CI.1

Part B.25 General Assets

Expenditures by Sub-appropriation	Actual 2009/10 $(000)	FTEs	Estimate 2009/10 $(000)	Variance Over/(Under) $(000)	Expl. No.
B.25	102		100	2	
Total Sub-Appropriation	102		100	2	

Sustainable Development Activities and Accomplishments

Manitoba Water Stewardship exemplifies commitment to the Sustainable Development Principles of Stewardship. The department in its Vision, Mission and Values statements clearly articulates its commitment to ensuring today's decisions are balanced with tomorrow's consequences, recognizing that Manitobans are caretakers of water resources for the benefit of present and future generations.

Activities of Manitoba Water Stewardship that incorporate or apply Sustainable Development Principles and Guidelines:
The Water Protection Act was proclaimed in force on January 1, 2006, the first act of its kind in Canada. *The Water Protection Act* represents the single most significant action of the Department to ensure the Principles and Guidelines of Sustainable Development are incorporated into and applied in its everyday operations. *The Water Protection Act* embodies and articulates Sustainable Development Guidelines and Principles in establishing the legislative framework around which Manitoba's water resources will be protected. It provides a key legislative and policy mandate for the department.

SUSTAINABLE DEVELOPMENT PRINCIPLES:

1. Integration of Environmental and Economic Decisions:

- *Economic decisions should adequately reflect environmental, human health and social effects.*
- *Environmental and health initiatives should adequately take into account economic, human health and social consequences.*

Water Stewardship staff reviewed proposed licenses, permits and development plans under *The Environment Act*, *The Water Rights Act*, municipal and planning district development plans and amendments, and municipal subdivisions to ensure the integrity and sustainability of Manitoba's drinking water, commercial water resources, fisheries, wetlands and riparian areas. Ensuring that Manitobans and their investments are protected from water related hazards and shortages is an important component of the licensing and review process.

2. Stewardship:

- *Water and fish resources should be managed for the benefit of present and future generations.*
- *Manitobans are caretakers of our water and fish resources for the benefit of present and future generations.*

The department provides a strong stewardship function in managing drinking water systems throughout Manitoba for today and into the future. This is accomplished through regulatory development and enforcement, emergency investigations, monitoring, technical support, testing services and operator guidance and support.

The maintenance, operation, and licensing of drainage systems and activities, dams and dikes is a critical stewardship function of Water Stewardship. The proper construction and operation of infrastructure for the benefit of individuals, communities, industry and the environment is essential.

Working together with irrigators, high levels of compliance on water use reporting has occurred. This ensures reliable water use records and an enhanced ability to manage water resources sustainably into the future.

The Department undertakes annual biological assessments of fish stocks to ensure the long term sustainability of stocks.

3. Shared Responsibility and Understanding:

- *Manitobans should acknowledge responsibility for sustaining water and fish resources with each being accountable for decisions and actions in a spirit of partnership and cooperation.*
- *Manitobans share a common economic, physical and social environment.*
- *Manitobans should understand and respect differing economic and social views, values, traditions and aspirations.*
- *Manitobans should consider the aspirations, needs and views of the people of the various geographical regions and ethnic groups in Manitoba, including aboriginal peoples, to facilitate equitable management of Manitoba's common resources.*

Manitoba Water Stewardship shares the responsibility to provide safe drinking water with water system owners and operators across Manitoba. This cooperation is demonstrated through outreach activities, presentations, and feedback on annual water system operations.

Manitoba Water Stewardship has undertaken the Southeast Regional Groundwater Management Planning process where departmental staff are working in conjunction with 54 external stakeholder agencies and 15 science/government stakeholder agencies to compile a management plan for the groundwater resources in southeast Manitoba.

Management of water control systems (waterway and drainage systems, dams, crossings, etc.) affects the well-being and sustainability of many communities and individuals. Sharing technical expertise with municipalities and conservation districts, collaborating with local technical advisory groups and facilitating cost-shared developments are examples of the department's cooperative efforts.

Manitoba Water Stewardship continues to work with various stakeholders in the establishment of basin, watershed and aquifer management plans. The department also provides administrative and technical assistance to several existing management advisory boards.

The department relies on water level and stream flow data collection under the Canada-Manitoba Hydrometric Agreement for operation of water control works, flood forecasting, water management investigations and hydrologic studies.

The department supported and facilitated the work of the Lake Winnipeg Stewardship Board and the Lake Manitoba Stewardship Board.

The department continues to work with First Nations and other stakeholders to develop fisheries management approaches that accommodate constitutional obligations and other stakeholder interests.

Regional staff consulted with West Region Tribal Council and other Aboriginal and Métis communities concerning additional conservation measures for the walleye stocks of Dauphin Lake. During the consultation process Manitoba was informed of the importance of the spring fishery to Aboriginal communities. Several proposed management options were reviewed.

4. Prevention:

- *Manitobans should anticipate, and prevent or mitigate, significant adverse economic, environmental, human health and social effects of decisions and actions, having particular careful regard to decisions whose impacts are not entirely certain but which, on reasonable and well-informed grounds, appear to pose serious threats to the economy, the environment, human health and social well-being.*

Existing licensing systems for water allocation, development and drainage all enhance the ability of Water Stewardship to anticipate, prevent or mitigate significant adverse effects from licensed activity on drinking water, commercial water sources, fisheries, wetlands and riparian areas.

Water Stewardship continued to work toward protection of endangered aquatic species in Manitoba by working with the federally appointed Committee on the Status of Endangered Wildlife in Canada

(COSEWIC), and cooperating with the federal Department of Fisheries and Oceans to develop recovery/management plans to address aquatic species of concern under the federal Species at Risk Act.

The Department continued to collaborate with other provincial and federal counterparts on public education and awareness of aquatic invasive species issues.

The department operates an ambient water quality monitoring network on major streams, lakes and recreational beaches, assisted by volunteers, regional personnel and organizations, such as conservation districts. Over 50 sites across Manitoba were regularly monitored for up to 100 chemical parameters, and 60 beaches were monitored, with information posted on the department's website.

Over 86% of public drinking water systems abide by newly established requirements for all utilities to apply for, and comply with an operating licence. Within this licence are operating and monitoring requirements to minimize any potential risk to public health resulting from the operation of the facility. Further to this, to mitigate long term adverse economic impacts, utilities are required to carry out an engineering assessment of their water treatment works once every five years. The intent of the assessment is to identify deficiencies in the infrastructure. The utility is then required to develop a compliance plan to address the deficiencies in a timely manner to ensure that public health is protected and the economic impact of the required work is satisfactorily addressed.

The Shellmouth Dam and Other Water Control Works Management and Compensation Act (under the Water Resources Administration Act) and the Phosphorus Reduction Act (under the Water Protection Act), were presented and passed in legislature.

Manitoba's 18 conservation districts offer over 40 incentive-based, preventative, best management practice programs. These programs support sustainable land use and water management protecting thousands of hectares of sensitive land and associated waters.

5. Conservation and Enhancement:

- *Maintain the ecological processes, biological diversity and life-support systems of the environment.*
- *Harvest renewable resources on a sustainable yield basis.*
- *Make wise and efficient use of renewable and non-renewable resources.*
- *Enhance the long-term productive capability, quality and capacity of natural ecosystems.*

The present water allocation licensing process, and associated hydrological yield analysis, has resulted in significant numbers of applications being placed on permanent hold on aquifers where sustainable yields are fully allocated.

In annually permitting and licensing water use and fish harvest, the department ensures that the sustainability of these resources is not compromised.

A Riparian Easements Delivery Program continued to operate in partnership with Manitoba Habitat Heritage Corporation to protect sensitive lands, including wetlands, riparian areas and fragile landscapes, through Conservation Easement Agreements.

Conservation District Secretariat Staff worked with 18 conservation districts in the development and delivery of water and soil conservation programs and projects.

The Fisheries Enhancement Fund has funded over 300 projects directed at enhancing fish populations and their habitat as well as funding educational opportunities. In 2009/10, the Fisheries Enhancement Fund funded 36 projects totalling $833,000.

6. Rehabilitation and Reclamation:

- *Endeavour to repair damage to or degradation of the environment.*
- *Consider the need for rehabilitation and reclamation in future decisions and actions.*

The Department coordinated and led the Province's efforts to restore the health of Delta Marsh, the large marsh at the southern region of Lake Manitoba and Netley – Libau mashes, the large marsh complex at the southern region of Lake Winnipeg.

An integrated watershed management planning approach joins local stakeholder groups and agencies to develop actions that work towards shared goals for their watersheds including watershed/stream restoration projects.

A memorandum of understanding was signed with the Cooks Creek Conservation District to initiate an integrated watershed management plan for the Cooks-Devils Creek watershed, bringing the total number of plans approved for development to 24.

The Wetland Restoration Incentive Program was continued as part of the province's climate change adaptation strategy, to help restore the condition of wetlands, improve water quality, and reduce greenhouse gas emissions through a one-time payment to landowners and securing the wetlands in perpetuity through conservation easements.

7. Global Responsibility:

- *Manitobans should think globally when acting locally, recognizing that there is economic, ecological and social interdependence among provinces and nations, and working cooperatively, within Canada and internationally, to integrate economic, environmental, human health and social factors in decision-making while developing comprehensive and equitable solutions to problems*

Manitoba Water Stewardship participates in the Canadian Council of Ministers of the Environment through its Environmental Planning and Protection Committee and Water Agenda Development Committee. The department supports the work of a number of the task groups associated with these Committees including the Water Quality Task Group, the Water Valuation Task Group, The Groundwater Task Group, Nutrients Task Group and the Monitoring for Climate Change Task Group.

The Department actively participates on various boards, committees and task groups established by the International Joint Committee under the Boundary Waters Treaty of 1909 including the International Souris River Board and the International Red River board.

The department also participates in national level committees to ensure the Canadian Drinking Water Quality Guidelines benefit Manitobans as well as all Canadians.

Participation in watershed and basin planning ensures that water issues that transcend local, regional and provincial boundaries are addressed.

The department participated in and supported the Red River Basin Commission, an organization dedicated to the environmental, economic and social sustainability of the Red River Valley.

Manitoba Water Stewardship continued its partnership agreement with Natural Resources Canada to implement the National Hydrographic Network.

The department participates on a number of inter-provincial and international boards and committees directed at the sustainable management of shared waters within the Hudson Bay Drainage Basin, including the Prairie Provinces Water Board, the Lake of the Woods Control Board, and the Western Water Stewardship Council.

SUSTAINABLE DEVELOPMENT GUIDELINES

1. Efficient Uses of Resources:

- *Encouraging and facilitating development and application of systems for proper resource pricing, demand management and resource allocation together with incentives to encourage efficient use of resources.*
- *Employing full-cost accounting to provide better information for decision makers.*

Manitoba Water Stewardship participated on a sub-committee of the Canadian Council of Ministers of the Environment on Water Valuation identifying economic instruments and demand-side management to support the efficient use of water.

2. Public Participation:

- *Establishing forums which encourage and provide opportunity for consultation and meaningful participation in decision-making processes by Manitobans.*
- *Endeavouring to provide due process, prior notification, and appropriate and timely redress for those adversely affected by decisions and actions.*
- *Striving to achieve consensus amongst citizens with regard to decisions affecting them.*

Technical advisory committees and community meetings were held to work to alleviate flooding on several First Nations lands. Such forums facilitated the identification of solutions that would protect communities into the future.

The Department worked with conservation districts to develop, in consultation with stakeholders, watershed management plans for the protection and management of surface and groundwater resources.

The Manitoba Water Council continued to provide Ministerial advice on policies, programs, plans and legislation needed to achieve the department's vision of "the best water for all life and lasting prosperity". The Council will help build a broad-based consensus among Manitobans on sustainable solutions for water protection and water management.

The Shellmouth Dam and Other Water Control Works Management and Compensation Act was presented and passed in legislature. This Act works to create operating guidelines for the dam, and ensures public participation through the establishment of an advisory committee to provide advice to the Minister about water control works.

3. Access to Information:

- *Encouraging and facilitating the improvement and refinement of economic, environmental, human health and social information.*
- *Promoting the opportunity for equal and timely access to information by all Manitobans.*

Manitoba Water Stewardship provides information covering all aspects of water resources to the public through the department's website, open houses and public meetings.

Departmental staff participated in the *Manitoba Envirothon* by working with the test-writing committee, preparing questions, and assisting in the field day and oral test components. *Envirothon* is an annual Olympic-style academic and environmental program. High school students (Senior I to IV) are tested in four discipline areas (aquatics, forestry, soils, and wildlife) and an annual theme.

Manitoba Water Stewardship continued to work in partnership with Manitoba Education and volunteer teachers to develop, expand, and deliver on-line, grade-specific lessons and activities that promote sustainable fisheries development. The efforts were focused on the Kindergarten to Grade 12 Science curriculum.

A total of 65 flood reports were issued in 2008 and 2009 for various areas in Manitoba. These reports were also posted on the department's website.

The Whiteshell Fish Hatchery Visitor Centre gave tours to approximately 4,500 people from June through the September long weekend. Interpretive exhibits included information on species reared at the hatchery, life stages of fish, how water is used, a history of the hatchery, aquatic invasive species, and ecosystem interaction.

Daily updates on recreational water quality at beaches across Manitoba were provided on the Department's web site. News releases were issued every Friday during the recreational season to provide information on recent test results, advisory signs, and how Manitobans can protect the beach and themselves.

The department distributed updated consumption guidelines for mercury in fish to the public and stakeholders through a brochure and the Water Stewardship website.

4. Integrated Decision Making and Planning:

- *Encouraging and facilitating decision-making and planning processes that are efficient, timely, accountable, and cross-sectoral and which incorporate an inter-generational perspective of future needs and consequences.*

Manitoba Water Stewardship continued to develop the template and model for Integrated Watershed Planning in Manitoba. This approach will ensure the integration of decision making and management of land, water and related resources.

Manitoba Water Stewardship partnered with Conservation Districts to implement watershed plans in 24 watersheds across municipal Manitoba.

In 2009/10, provincial grants totalling $5.515 million were provided to 18 conservation districts to support the conservation districts program in areas such as water management, soil conservation, water storage, wildlife habitat, preservation of historic resources, recreation, public education, administration and other programs that promote sustainable resource management.

5. Waste Minimization and Substitution:

- *Encouraging and promoting the development and use of substitutes for scarce resources where such substitutes are both environmentally sound and economically viable.*
- *Reducing, reusing, recycling and recovering the products of society.*

WaterSmart Manitoba is a provincial water conservation initiative that helps Manitobans to become more efficient at conserving our water resource for future generations. Initially focusing on single family residential households, the initiative will be built over a multi-year timeframe to include other water use sectors such as municipal and commercial.

The Department continued its commitment to improving water use efficiency by providing assistance to retrofit toilets in low income housing.

6. Research and Innovation:

- *Means encouraging and assisting the researching, development, application and sharing of knowledge and technologies which further our economic, environmental, human health and social well-being.*

The department supported research on Lake Winnipeg through a grant to the Lake Winnipeg Research Consortium for operation of *The Namao,* and through its own research activities on Lake Winnipeg.

The Water Stewardship Fund provides $350,000 in grants annually to develop, implement, and promote activities in research that maintain or improve the quality and availability of Manitoba's water.

Revenue and Expenditure Summaries

Table RE.1

Reconciliation Statement

$(000s)

DETAILS	2009-10 ESTIMATES
Printed Estimates of Expenditure 2009/10	$33,976
Allocation from Internal Reform • Amortization and Interest	16
2009-10 ESTIMATES	**$33,892**

Table RE.2
Revenue Summary By Source
For the year ended March 31, 2010 with comparative figures for the previous fiscal year

Actual 2008/09	2009/10	Increase (Decrease)	Source	Actual 2009/10	Estimate 2009/10	Variance	Expl. No.
			OTHER REVENUE:				
0	0	0	(a) Drinking Water Fees	0	0	0	
86	414	328	(b) Fisheries Fees and Sundry	414	307	107	1
2,579	2,825	246	(c) Licence Sales by Vendors	2,825	3,091	(266)	
115,660	114,745	(915)	(d) Water Power Rentals	114,745	118,502	(3,757)	
157	175	18	(e) Water Resources Sundry	175	76	99	2
118,482	118,159	(323)	Subtotal	118,159	121,976	(3,817)	
			GOVERNMENT OF CANADA:				
40	0	(40)	Fisher River Flood Protection	0	0	0	
40	0	(40)	Subtotal	0	0	0	
118,522	**118,159**	**(363)**	**Total**	**118,159**	**121,976**	**(3,817)**	

Explanation Number:

1. Revenue from Manitoba Hydro for Grand Rapids Hatchery support.

2. Increase in number of Water Rights and drainage licence applications received.

Table RE.3
Expenditure Summary
For fiscal year ended March 31, 2010 with comparative figures for the previous year.

Estimate 2009/10	Appropriation	Actual 2009/10	Actual 2008/09	Increase (Decrease	Expl No.
	25-1 Administration and Finance				
46	**(a) Minister's Salary**	46	45	1	
	(b) Executive Support				
534	Salaries and Employee Benefits	534	503	31	
187	Other Expenditures	97	82	15	
	(c) Administration and Finance				
310	Salaries and Employee Benefits	361	301	60	
65	Other Expenditures	40	42	(2)	
	(d) Information Technology Services				
318	Salaries and Employee Benefits	348	346	2	
15	Other Expenditures	14	11	3	
1,475	Total 25-1	1,440	1,330	110	
	25-2 Ecological Services				
	(a) Administration				
162	Salaries and Employee Benefits	186	278	(92)	
68	Other Expenditures	52	50	2	
25	Grant Assistance	13	231	(218)	
188	Minor Capital	148	123	25	
443	Total 25-2a	399	682	(283)	
	(b) Planning and Coordination				
1,888	Salaries and Employee Benefits	1,613	1,680	(67)	
365	Other Expenditures	509	1,242	(733)	
2,253	Total 25-2b	2,122	2,922	(800)	
	(c) Water Science and Management				
	(1) Administration				
199	Salaries and Employee Benefits	210	163	47	
156	Other Expenditures	134	125	9	
	(2) Groundwater Management				
972	Salaries and Employee Benefits	1,032	954	78	
685	Other Expenditures	477	567	(90)	
	(3) Surface Water Management				
566	Salaries and Employee Benefits	639	509	130	
165	Other Expenditures	135	158	(23)	
	(4) Water Quality Management				
881	Salaries and Employee Benefits	872	795	77	
812	Other Expenditures	766	649	117	
4,436	Total 25-2c	4,265	3,920	345	
	(d) Fisheries Branch				
	(1) Administration				
120	Salaries and Employee Benefits	114	168	(54)	
284	Other Expenditures	267	292	(25)	
	(2) Aquatic Eco-System Management				
1,269	Salaries and Employee Benefits	1,205	1,095	110	
209	Other Expenditures	210	215	(5)	
	(3) Sport and Commercial Fishing Management				
682	Salaries and Employee Benefits	784	689	95	
84	Other Expenditures	68	76	(8)	
	(4) Regional Fisheries Resources				
968	Salaries and Employee Benefits	1,063	940	123	
236	Other Expenditures	232	219	13	
410	(5) Northern Fisherman's Freight Assistance	410	410	-	

Estimate 2009/10	Appropriation	Actual 2009/10	Actual 2008/09	Increase (Decrease	Expl No.
850	(6) Fisheries Enhancement Fund	833	821	12	
5,112	Total 25-2d	5,186	4,925	261	
	(e) Conservation District and Watershed Assistance				
5,615	Conservation District and Watershed Assistance	5,515	5,215	300	
(1,165)	Less: Recoverable from Rural Economic Development Initiatives	(1,165)	(925)	(240)	
4,450	Total 25-2e	4,350	4,290	60	
16,694	Total 25-2	16,322	16,739	(417)	
	25-3 Regulatory and Operational Services				
	(a) Administration				
454	Salaries and Employee Benefits	458	437	21	
623	Other Expenditures	625	553	72	
	(b) Flood Forecasting and Flood Response Coordination				
666	Salaries and Employee Benefits	727	632	95	
243	Other Expenditures	325	246	79	
	(c) Water Control System Management				
884	Salaries and Employee Benefits	827	626	201	
196	Other Expenditures	179	113	66	
	(d) Regulatory Services				
	(1) Office of Drinking Water				
1,354	Salaries and Employee Benefits	1,302	1,098	204	
1,536	Other Expenditures	1,233	1,170	63	
	(2) Water Control Works and Drainage Licensing				
1,587	Salaries and Employee Benefits	1,639	1,569	70	
546	Other Expenditures	507	537	(30)	
	(3) Water Use Licensing				
1,436	Salaries and Employee Benefits	1,386	1,123	263	
163	Other Expenditures	182	123	59	
398	(e) Waterway Planning and Operational Services Support	286	298	(12)	
10,086	Total 25-3	9,676	8,525	1,151	
	Water Stewardship Initiatives	4,558	5,720	(1,162)	1
5,316	Total 25-4	4,558	5,720	(1,162)	
	25-5 Costs Related to Capital Assets				
39	(a) Desktop Services –Enterprise Software Licenses	39	39	0	
	(b) General Assets				
238	(1) Amortization Expense	239	225	14	
38	(2) Interest Expense	43	44	(1)	
305	Total 25-5	321	308	13	
33,876	**TOTAL EXPENDITURES**	32,317	32,622	(305)	
100	**B.25 Capital Investments – General Assets**	102	159	(5	
100	**TOTAL CAPITAL INVESTMENT**	102	159	(5	

Explanation Number:

1. Year-over-year difference in Water Stewardship Initiatives project activities

Table RE.4
FIVE YEAR EXPENDITURE AND STAFFING SUMMARY BY MAIN APPROPRIATION
for the fiscal years ended March 31, 2006 to March 31, 2010*

Main Appropriation		2005/2006		2006/2007		2007/2008		2008/2009		2009/2010	
		FTEs	$(000)	FTEs	$(000)	FTEs	$(000)	FTEs	$(000)	FTEs	$(000)
25-1	Administration and Finance	16.00	1,352	16.00	1,161	16.00	1,466	15.00	1,330	15.00	1,440
25-2	Ecological Services	116.19	16,025	108.19	13,557	112.19	14,698	115.06	16,739	114.06	16,322
25-3	Regulatory and Operational Services	41.50	4,493	74.12	5,402	85.12	7,516	93.00	8,525	93.00	9,676
25-4	Water Stewardship Initiatives		2,565		4,741		4,837		5,720		4,558
25-5	Costs Related to Capital Assets		228		244		317		308		321
	Total Appropriations (BA25)	**176.69**	**24,663**	**198.31**	**25,105**	**198.31**	**28,834**	**223.06**	**32,622**	**224.06**	**32,317**

* Adjusted figures reflect historical data on a comparable basis in those appropriations affected by re-organization, during the years under review.

MANITOBA WATER STEWARDSHIP – Performance Reporting Table

The following section provides information on key performance measures for the department for the 2009-10 reporting year. All Government of Manitoba departments include performance measures in their Annual Reports to complement the financial results and provide Manitobans with meaningful and useful information about government activities and their impact on the province and its citizens.

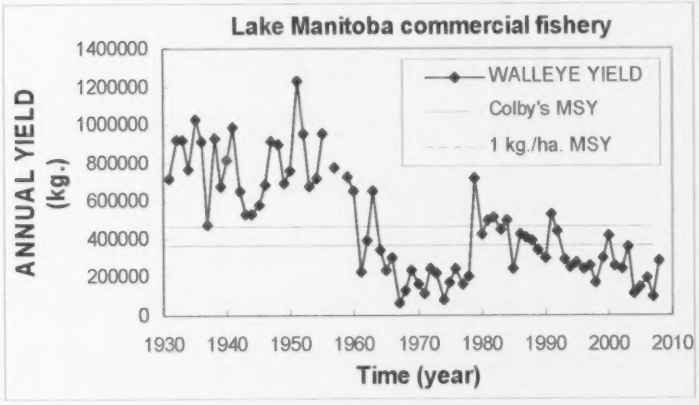
For more information on performance reporting and the Manitoba government, visit www.manitoba.ca/performance.

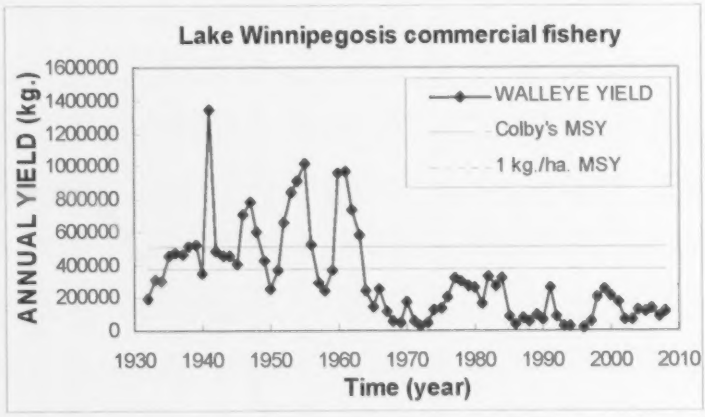
Your comments on performance measures are valuable to us. You can send comments or questions to mbperformance@gov.mb.ca.

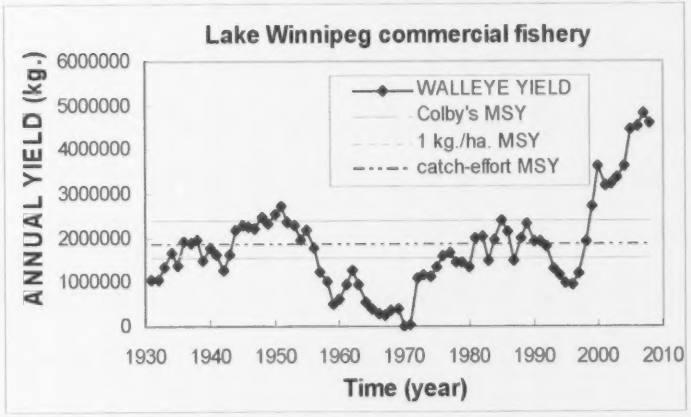
What is being measured and how?	Why is it important to measure this?	Where are we starting from?	What is the most recent available value for this indicator?	What is the trend over time for this indicator?	Comments/recent actions/report links
The status of fish stocks, by comparing commercial production of the most valuable fish species (i.e., walleye) against Maximum Sustainable Yield (MSY) estimates for four large commercial fisheries (Cedar Lake, Lake Manitoba, Lake Winnipeg and Lake	It is important to measure the status of these fish stocks because they are an indicator of aquatic ecosystem health and economic opportunity for fishers. It is important to track production of highly sought species against estimated MSY, because the harvest of consistently valuable species is reflective of	The baseline measure for this is the annual MSY for each lake **Lake Winnipegosis –** 263,320 kgs (walleye) **Lake Manitoba –** 907,200 kgs (walleye, sauger) **Cedar Lake –** 496,600 kgs (walleye, sauger, goldeye, whitefish) – tolerance: not more than	See Graphs below	**Lake Winnipegosis –** stocks considered collapsed. **Lake Manitoba –** production has experienced long term decline. **Cedar Lake –** recent increases in production reflect five-year closure due to decreased fishery. **Lake Winnipeg –** production at record levels but high nutrients and invasive species	**Lake Winnipegosis –** The Department continued to implement rehabilitation strategies as part of overall stock recovery efforts. **Lake Manitoba** – the lake stewardship board was tasked to review fisheries management plans. The Department is undertaking community meetings to solicit resource user input into the development of a fisheries management plan. **Cedar Lake** – Recovery of fish stocks is not complete. Fishery continues to be adjusted, in accordance with the management plan implemented in June 2006. **Lake Winnipeg** – Monitoring efforts on Lake Winnipeg will continue because available staff resources are now in place. A *Lake Winnipeg Quota Review Task Force* was established to conduct a biological review.

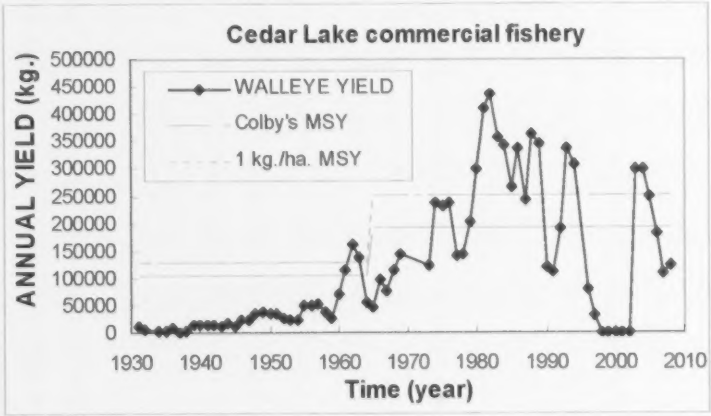
What is being measured and how?	Why is it important to measure this?	Where are we starting from?	What is the most recent available value for this indicator?	What is the trend over time for this indicator?	Comments/recent actions/report links
Winnipegosis).	abundance (less influenced by market factors; i.e. price paid).	300,000 can be walleye **Lake Winnipeg –** 6,400,000 kgs (walleye, sauger, whitefish)		leaves concerns for stability.	

Commercial production and maximum sustainable yield (MSY) on four large Manitoba fisheries.



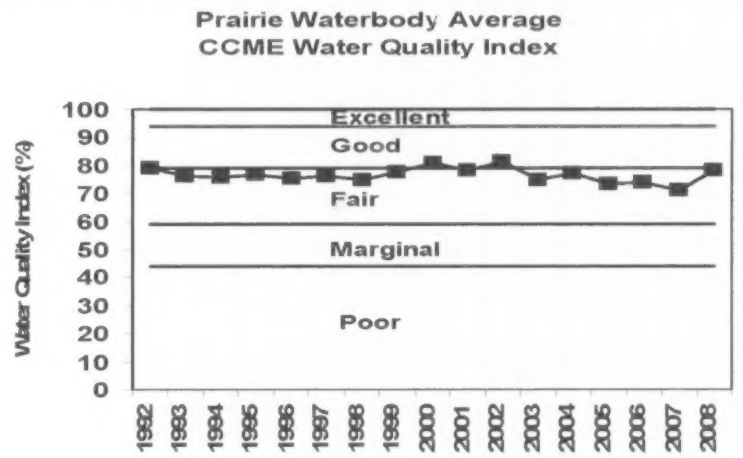


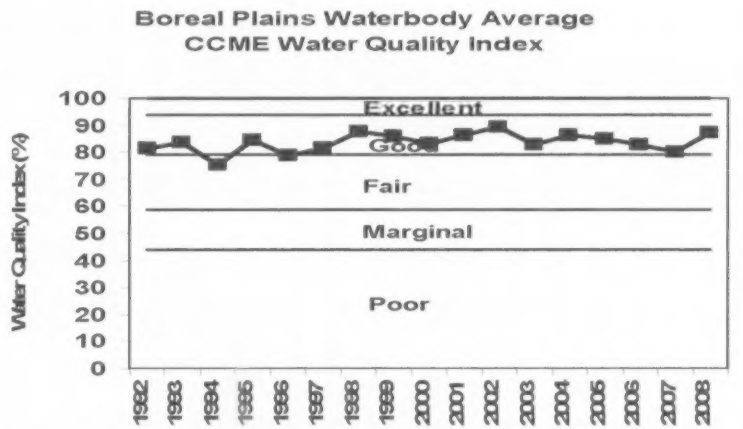


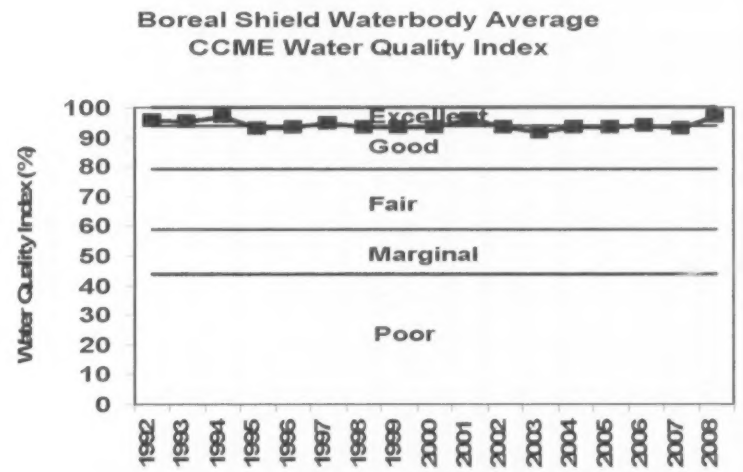


What is being measured and how?	Why is it important to measure this?	Where are we starting from?	What is the most recent available value for this indicator?	What is the trend over time for this indicator?	Comments/recent actions/report links
Water quality in Manitoba, by assessing water quality data using the CCME (Canadian Council of Ministers of the Environment) Water Quality Index.	It is important to measure water quality because we want to protect drinking water, fish and other aquatic life, recreation, and other important water uses.	Water quality has been tested at many rivers, streams and lakes since the early 1970s. The Water Quality Index has been calculated for 40 to 50 sites since 1992.	The latest data available is for 2008. Within the Prairie Ecozone, the CCME Water Quality Index Value was 76 or of "fair" quality. Within the Boreal Plains, the CCME Water Quality Index Value was 84 or of "good" quality. Within the Boreal Shield Ecozone, the CCME Water Quality Index Value was 94 or of "good" quality.	The Water Quality Index in Manitoba has been stable since 1992 (see graphs below).	Work is underway to protect, maintain and improve water quality in Manitoba including measures to reduce nutrient loading to waterways. For example, in 2009/10, Water Stewardship implemented the Nutrient Management Regulation under *The Water Protection Act,* including developing and distributing new materials to heighten public awareness, and working with golf courses on the preparation of nutrient management plans. Since development and drainage can also impact water quality, Water Stewardship recommends mitigation measures to minimize impacts. Mitigation measures implemented during 2009/10 include requirements for nutrient removal for new or expanding wastewater treatment facilities serving the food processing industry, large communities or in provincial parks.

CCME Water Quality Index for Manitoba







The Water Quality Index compares a number of important water quality parameters against established standards, objectives, or guidelines. When compared over time, it provides a useful indicator of how water quality may be changing. Annual data from 40 to 50 consistently monitored sites are used in the WQI.

The Water Quality Index yields a number between 0 and 100 that is indicative of the overall water quality.

Excellent: (CCME WQI Value 95-100) - water quality is protected with a virtual absence of threat or impairment; conditions very close to natural or pristine levels. These index values can only be obtained if all measurements are within objectives virtually all of the time.
Good: (CCME WQI Value 80-94) - water quality is protected with only a minor degree of threat or impairment; conditions rarely depart from natural or desirable levels.
Fair: (CCME WQI Value 65-79) - water quality is usually protected but occasionally threatened or impaired; conditions sometimes depart from natural or desirable levels.
Marginal: (CCME WQI Value 45-64) - water quality is frequently threatened or impaired; conditions often depart from natural or desirable levels.
Poor: (CCME WQI Value 0-44) - water quality is almost always threatened or impaired; conditions usually depart from natural or desirable levels.

What is being measured and how?	Why is it important to measure this?	Where are we starting from?	What is the most recent available value for this indicator?	What is the trend over time for this indicator?	Comments/recent actions/report links
The development and effective use of integrated watershed plans and Conservation District (CD) governance. Three individual metrics measure: A. Watershed Management B. Citizen Engagement C. Integrated Watershed Management Planning and Implementation	To understand the progress being made in improving watershed health. Watershed planning is a key strategy to meet: recommendations of the Lake Winnipeg Stewardship Board to reduce nutrients, evaluate drinking water source protection as set out by the *Water Protection Act*, to ensure that environmental information is available for incorporation into the municipal planning process, and to protect valuable water resources and ensure sustainable development into the future for Manitobans.	In 2006 The Water Protection Act was proclaimed, enabling the Provincial designation of Water Planning Authorities, primarily through the Conservation Districts program. Current scores for each watershed are presented in the map below. Conservation Districts offer a mixed suite of programming across municipal Manitoba. As planning progresses, CD programming and budgets will be reflective of plan recommendations.	Water planning authorities have initiated plan development in 24 out of an expected 30 watersheds (dependant on final boundaries). Currently there are 24 Integrated Watershed Management Plans either completed or being developed by 17 water planning authorities across municipal Manitoba Two plans have been completed. In 2009/10, four were initiated and six more are planned to commence in 2010/11.	Excellent and expanding	The Conservation District budget format has been revised to directly link program delivery to integrated watershed management plan implementation Manitoba Water Stewardship planners are working: with CDs to complete watersheds plans in all 30 municipal watersheds with CDs, to align programming and budgets to plans, and to encourage the voluntary movement towards watershed boundaries and watershed-based management for all watersheds.

Indicator – The development and effective use of integrated watershed management plans and Conservation District governance.

A Watershed Management

A watershed organization exists with policies which coordinate decision making within and between agencies responsible for water management.
0 – no conservation district exists
1 – a municipal-based conservation district exists or exists in only a small part of the watershed
2 – a watershed-based conservation district exists with limited involvement in water management decision making
3 – a watershed-based conservation district exists with policies which coordinate decision making between and within agencies responsible for water management.

B Citizen Engagement

Engagement of local citizens in planning, incentive programming and education.
0 – no conservation district exists
1 – a conservation district exists but offers limited incentive-based and education programming
2 – a conservation district exists and offers incentive-based and education programming broadly
3 – a conservation district exists and offers relevant, targeted incentive-based programming to engaged and educated residents.

C Integrated Watershed Management Planning and Implementation

An integrated watershed management plan is implemented as evidenced through linked budgets, and programming reflective of plan recommendations.
0 – a water planning authority has not completed a management plan
1 – a water planning authority exists with a plan in development stages
2 – a watershed plan is complete but programming does not closely reflect plan recommendations
3 – a watershed plan is complete and programming is reflective of plan recommendations

The Development and Effective Use of Integrated Watershed Management Plans and Conservation District Governance

Legend

Score Metrics

A. Watershed Management
B. Citizen Engagement
C. Integrated Watershed Management Planning and Implementation

Total Score

0-1 NO CD - No CD or only a small portion of the watershed contains a CD
2-4 CAPACITY BUILDING - Programs not tailored to watershed based management or issues
5-7 LIMITED PROGRAMMING - Plan in development, untargeted to municipal programming
8-9 TARGET - Relevant targeted CD programming offered in watershed

Watershed Name	Score A	B	C	Watershed Name	Score A	B	C
Alonsa	3	2	1	Morris River	1	0	0
Arrow-Oak River	1	2	3	Netely Grassmere	2	2	1
Birdtail Assiniboine	1	2	3	Pembina River E & W	1	2	3
Brokenhead River	0	0	0	Plum River	0	0	0
Carrot River	1	1	0	Rat Marsh River	2	2	1
Central Assiniboine	1	2	1	Roseau River	0	0	0
Cooks-Devils Creek	1	1	1	Seine River	2	2	3
Dauphin Lake	1	2	1	Shell River	1	1	1
East Duck	2	2	2	Sturgeon Creek	1	0	0
East Souris River	1	2	3	Swan Lake	2	2	1
Fisher River	2	2	1	West Interlake	2	1	1
Icelandic River	2	3	3	West Souris	1	2	3
La Salle River	1	2	2	Whitemouth River	0	0	0
Lake Manitoba North	0	0	0	Whitemud River	3	2	1
Little Saskatchewan River	1	2	2	Willow Creek	2	2	1

What is being measured and how?	Why is it important to measure this?	Where are we starting from?	What is the most recent available value for this indicator?	What is the trend over time for this indicator?	Comments/recent actions/report links
The effectiveness of Manitoba's flood risk management in vulnerable communities by measuring dollars spent on flood protection including planning, programming, infrastructure and equipment.	It is important to measure the effectiveness of flood risk management, because Manitobans face risks from both surplus and scarcity of water, which impacts economic prosperity, human health and security.	The baseline year is 1997. The department is measuring the increase of Manitoba communities and individual homes, businesses and farms that are protected to the 100 year flood level.	Since 1997, $450,224,000.00 has been spent on flood protection in Manitoba. In the Red River Valley Flood Area 1879 properties meet the 100 year flood level through upgrades to neighbourhood dikes or individual flood protection for homes, businesses, and farms. Seven municipalities along Lake Winnipeg have increased protection by establishing 42 kilometres of dikes.	Flood protection is improving steadily.	• The Department continues to review the flood risk for subdivisions, crown land sales and leases and development permits. • All major flood control works were operated during fiscal 2009/10. • Flood forecasting contributed to flood damage reduction through proper planning for flood protection and mitigation. • A province-wide flood mitigation program was developed after the 2009 flood, and some elements will be undertaken as part of a Canada-Manitoba Flood Mitigation Program. • An enhanced ice jam mitigation program has been developed that includes the use of five ice cutters and a Provincial ice breaker. • Red River Floodway expansion is largely complete • The Provincial Land Use Policies promote better land use patterns and development on lands subjects to flooding, erosion and bank instability.

What is being measured and how?	Why is it important to measure this?	Where are we starting from?	What is the most recent available value for this indicator?	What is the trend over time for this indicator?	Comments/recent actions/report links
The environmental footprint related to water use and the effectiveness of our water awareness programs in Manitoba by measuring per capita water consumption for both industrial and domestic uses (Winnipeg and Brandon). Currently this is only a measure of our urban footprint and urban user awareness.	It is important to measure our environmental footprint and effectiveness of awareness programs because • we want to reduce our environmental footprint; • per capita water usage has an impact on our infrastructure needs; • intensity of use of water is a key environmental indicator (Organization for Economic Cooperation and Development).	Baseline measure for overall water consumption for the City of Winnipeg is 495.2 l/c/d for 1988. Baseline measure for overall water consumption for the City of Brandon is 432 1/c/d for 1988	Per capita water use for the City of Winnipeg for 2009/10 was 314 litres/per capita/per day (l/c/d) (combined residential, commercial/industrial and loss). Estimated residential 214 l/c/d, commercial 69 l/c/d, and industrial 31 l/c/d. Per capita water use for the City of Brandon for 2009/10 was 391 l/c/d; 197 for residential; 64 l/c/d for commercial; 100 l/c/d for industrial; and 29 l/c/d for other uses. Loss rates were determined to be 13%. *Note: These figures have been supplied by the City of Winnipeg and the City of Brandon, respectively.*	The trend in overall water consumption (both residential and commercial) for the City of Winnipeg has been steadily declining from a high of 495.2 l/c/d in 1988, to 314 l/c/d in 2008. The trend in overall water consumption for Brandon has decreased from 432 l/c/d in 2008/09 to 391 l/c/d, however 2009 was the first year in which system water loss was identified and separated from consumption figures.	WaterSmart Manitoba is a provincial water-efficiency program which came into effect November 12, 2008, with the aim of educating and promoting water conservation and water efficiency strategies, initially focused on residential households, and then expanding to other water use sectors. The Organization for Economic Cooperation and Development, in their reference paper OECD *Environmental Indicators – Development, Measurement and Use*, identifies the intensity of use of water as a key environmental indicator. The OECD uses gross abstractions as % of total renewable freshwater resources and per capita use as measures of intensity. This indicator links with national and other international initiatives. Environment Canada and other provinces identify and track water use as a measure of effectiveness of programs and activities to educate and inform the public of the importance and value of water. While this is currently only a measure of our urban water use and awareness, we will work towards expanding this measure to include all of Manitoba. With future water efficiency programs/measures that Manitoba Water Stewardship, in cooperation with Manitoba Innovation, Energy and Mines, is

What is being measured and how?	Why is it important to measure this?	Where are we starting from?	What is the most recent available value for this indicator?	What is the trend over time for this indicator?	Comments/recent actions/report links
					implementing, it is expected that there will be additional reductions in water usage.

What is being measured and how?	Why is it important to measure this?	Where are we starting from?	What is the most recent available value for this indicator?	What is the trend over time for this indicator?	Comments/recent actions/report links
Manitoba's 420 public water supply systems serve approximately 85% of Manitoba's residents. The remainder of the population is served by private wells or fall within federal jurisdiction, e.g. First Nations. The provincial public systems are monitored to ensure compliance with: testing frequencies and acceptable limits established by Health Canada's "Guidelines for Canadian Drinking Water Quality" and provincial standards. Compliance with	It is important to measure the bacteriological safety of drinking water to minimize the risks to public health from consuming water that may contain disease causing organisms. Monitoring disinfectant concentrations is required to ensure there is adequate disinfectant to inactivate any bacteria present in the water. Routine bacteriological testing and maintaining adequate	The Office of Drinking Water compliance monitoring program was initiated in 2003. The baseline compliance index value for public water systems in Manitoba was 72% (systems in compliance) in 2003. The compliance index value for public water systems in Manitoba was 78% (systems in compliance) in 2007.	The most recent compliance index value available for public water systems in Manitoba is 86% based on 2009 information. The 86% value represents the average compliance of the 420 public water systems many of which are small and lack resources to maintain compliance. From a population perspective, >95% of the population serviced by a public water	Compliance has improved steadily since 2003 probably due to the increased presence of Drinking Water Officers to monitor systems and provide technical support. Between 2007 and 2009 compliance increased from 78% to 86%. This was probably due to the fact that most public water systems have now been issued operating licences which clearly define monitoring requirements.	For more information, see the Office of Drinking Water web site: http://www.gov.mb.ca/waterstewardship/odw/index.html. The site contains several technical documents associated with Manitoba's drinking water program. Drinking water safety is protected through the use of construction permits and operating licences for water suppliers, scheduled and non-scheduled inspection of facilities, scheduled quality monitoring and ongoing utility and public education. • Licensing and permitting ensures that minimum engineering and construction standards are met or exceeded. • Inspections ensure that minimum operational performance and water quality standards are met by utilities and, that there is ongoing pubic reporting and accountability. • All of the activities focus on the importance of public health protection through the assurance of water supply quality, reliability and maintenance of public confidence. • Monitoring includes bacteriological testing schedules, bacteriological water quality standards, chlorine residual testing schedules, and standards. • The frequency of compliance with the above factors is measured to indicate the percentage of systems that are meeting regulatory requirements.

What is being measured and how?	Why is it important to measure this?	Where are we starting from?	What is the most recent available value for this indicator?	What is the trend over time for this indicator?	Comments/recent actions/report links
these factors are averaged to establish the compliance index used for the purposes of this report	disinfectant concentrations are fundamental drinking water principals to ensure the protection of public health.		system receive water from a utility that is in compliance >95% of the time.		

The Public Interest Disclosure (Whistleblower Protection) Act

The Public Interest Disclosure (Whistleblower Protection) Act came into effect in April 2007. This law gives employees a clear process for disclosing concerns about significant and serious matters (wrongdoing) in the Manitoba public service, and strengthens protection from reprisal. The Act builds on protections already in place under other statutes, as well as collective bargaining rights, policies, practices and processes in the Manitoba public service.

Wrongdoing under the Act may be: contravention of federal or provincial legislation; an act of omission that endangers public safety, public health or the environment; gross mismanagement; or, knowingly directing or counselling a person to commit a wrongdoing. The Act is not intended to deal with routine operational or administrative matters.

A disclosure made by an employee in good faith, in accordance with the Act, and with a reasonable belief that wrongdoing has been or is about to be committed is considered to be a disclosure under the Act, whether or not the subject matter constitutes wrongdoing. All disclosures receive careful and thorough review to determine if action is required under the Act, and must be reported in a department's annual report in accordance with Section 18 of the Act.

The following is a summary of disclosures received by Manitoba Water Stewardship for fiscal year 2009/10.

Information Required Annually (per Section 18 of The Act)	**Fiscal Year – 2009 - 2010**
The number of disclosures received and the number acted on and not acted *Subsection 18(2)(a)*	**NIL**
The number of investigations commenced as a result of a disclosure. *Subsection 18(2)(b)*	**NIL**
In the case of an investigation that results in a finding of wrongdoing, a description of the wrongdoing and any recommendations or corrective actions taken in relation to the wrongdoing, or the reasons why no corrective action was taken. *Subsection 18(2)(c)*	**NIL**

Statutory Responsibilities of The Minister of Water Stewardship

The Conservation Agreements Act, C.C.S.M. chapter C173
The Conservation Districts Act, C.C.S.M. chapter C175
The Drinking Water Safety Act, C.C.S.M. chapter D101
The Dyking Authority Act, C.C.S.M. chapter D110
The Fisheries Act, C.C.S.M. chapter F90 [except Part III]
The Fishermen's Assistance and Polluters' Liability Act, C.C.S.M. chapter F100
The Ground Water and Water Well Act, C.C.S.M. chapter G110
The Manitoba Habitat Heritage Act, C.C.S.M. chapter H3
The Lake of the Woods Control Board Act, C.C.S.M. chapter L30
The Manitoba Natural Resources Transfer Act (as it relates to water and fisheries), C.C.S.M. chapter N30
The Natural Resources Agreement Act, 1938, C.C.S.M. chapter N40
An Act to ratify a certain Agreement between the Government of the Dominion of Canada and the Government of the Province of Manitoba, C.C.S.M. chapter N50
The Phosphorus Reduction Act (Water Protection Act Amended), SM 2008, chapter W65
The Red River Floodway Act, C.C.S.M. chapter R2
The Shellmouth Dam and Other Water Control Works Management and Compensation Act (Water Resources Administration Act Amended), SM 2008, chapter W70
The Water Power Act, C.C.S.M. chapter W60
The Water Protection Act, C.C.S.M. chapter W65
The Water Resources Administration Act, C.C.S.M. chapter W70

- Sections 16, 17 and 18
- All other sections of the Act insofar as they related to the planning and direction of water control works, but excluding the construction and maintenance of water control works

The Water Resources Conservation Act, C.C.S.M. chapter W72
The Water Rights Act, C.C.S.M. chapter W80
The Water Supply Commissions Act, C.C.S.M. chapter W100

and:

Manitoba Fishery Regulations (under section 43 of the *Fisheries Act* (Canada))

As per Schedule "S", Order-In-Council 350/2009